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# MEDICAL DIAL

A Monthly Record of Medicine and Surgery.

VOL. III.
No. 1.

MINNEAPOLIS, JANUARY, 1901.

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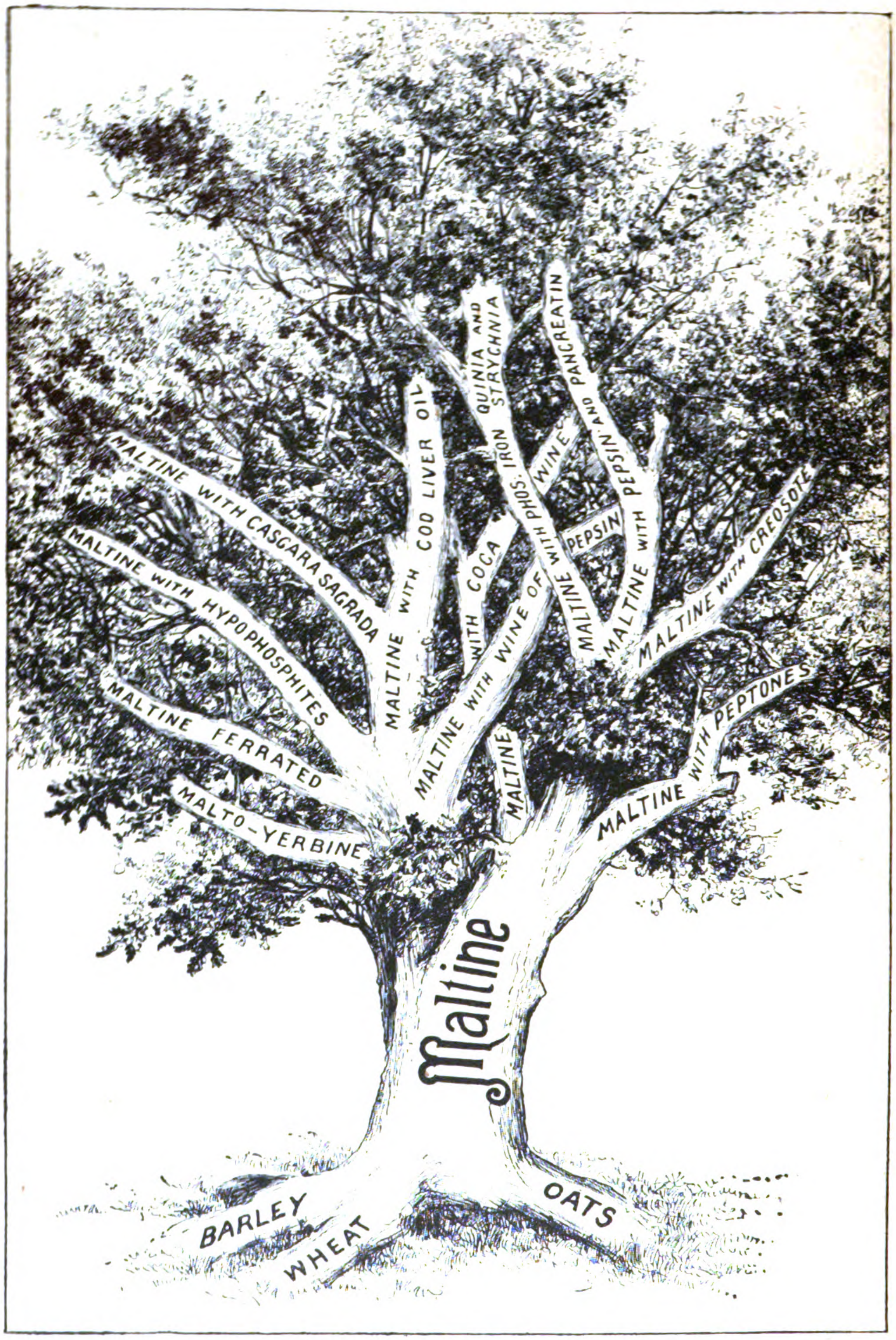
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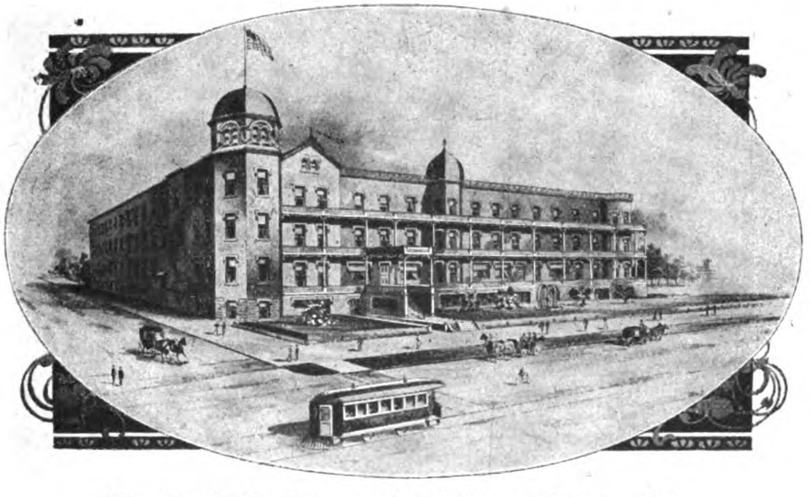

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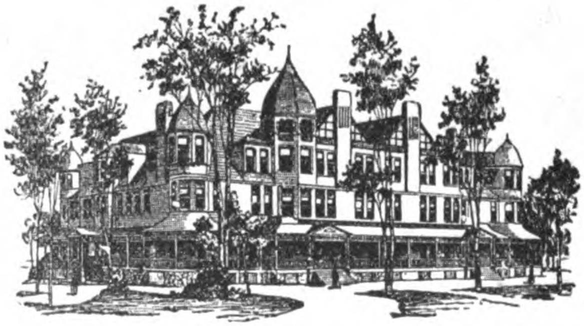

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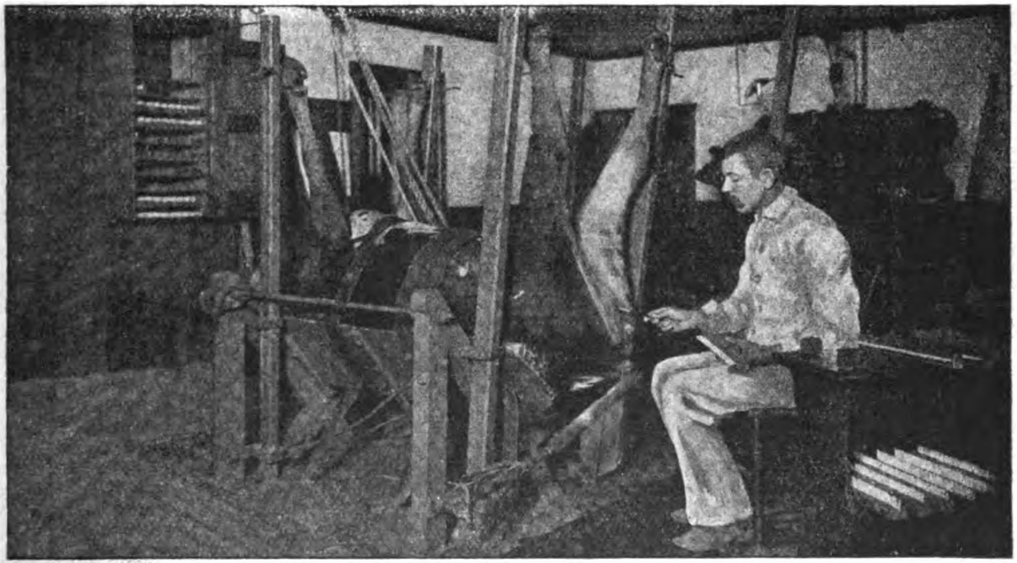

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## January to December, 1901

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# MEDICAL DIAL.

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## Original Articles.

### *TRAUMATIC INJURIES OF THE URETER.

By J. W. Macdonald, M. D., F. R. C. S. E., Minneapolis.

Small in size, elastic and movable, protected by dense masses of muscles and fat, and guarded in its lower portion by bony prominences, the ureter is less liable to injury than almost any structure in the human organism.

The recent advancement in pelvic surgery and the vast number of pelvic operations which are being performed are responsible for many accidents to the ureters, either by cutting the tubes or by ligating them. It has been estimated that the ureter is divided or ligated in three per cent. of hysterectomies. This appears to be a very high percentage, and I am very glad to say, so far as I can ascertain, it does not apply to this part of the country. The vast amount of work before this society warns me to pass over these accidents and restrict my remarks to injuries of the ureter produced by external violence.

It is convenient to divide ureteral injuries into:

1. Subparietal injuries; or those in which no open wound communicates with the injured ureter.
2. Penetrating wounds; or those in which an open wound communicates with the injured ureter.
3. Surgical wounds, accidentally or intentionally inflicted.

The most common causes of rupture of the ureter (excepting accidents during operations) are, great crushing forces, such as result from the passage of the wheel of a heavy vehicle over the body at the level of the umbilicus and loin, the kick of a horse, violent overstretching, or a severe blow such as a laborer sometimes receives from the handle of a wheelbarrow. Rupture has also been produced by falling on the back from a height, as in Cabot's case, the bursting of a cannon shell (Seller's), and by the violent jerk produced by jumping from a horse (Fenger's case).

Much speculation has been indulged in regarding the mechanism of a ruptured ureter. Tuffier suggested that the ureter gives way by being crushed against the tip of the transverse proscess of the first lumbar vertebra, but Morris opposed this view on the ground that it would be more likely to wound the hilum of the kidney, since the ureter only commences a little above the level of the tip of the transverse process of the third lumbar vertebra, consequently, too low down to be crushed against the first transverse process though it may be so compressed against the tips of the third, fourth or fifth processes. Violent overstretching of the ureter till the tube tears or snaps, has been suggested. If there is a sudden and violent downward displacement of the kidney the weight of the organ dragging upon the ureter, may tear the tube at its juncture with the renal pelvis (Le Dentu). The kidney, holding the upper end of the ureter and the brim of the pelvis the lower end, rupture is liable to occur at one of two places—either the junction of the ureter and the hilum above, or at the point of the ureter where it passes over the sacro-iliac-synchrondrosis below.

Symptoms. When there is an external wound, through which urine is trick-

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*Paper read before the meeting of the Western Surgical and Gynecological Association at Minneapolis, December 28, 1900.

ling, and the crushing force is below the kidney, the diagnosis of ruptured ureter is easily arrived at. If the traumatism is as high as the kidney, it is impossible to say whether the rupture is in the kidney or the ureter. In most cases, however, there is no external wound, and the symptoms of ruptured ureter, excepting pain and tenderness, may be absent for a considerable time. The pain is commonly felt in the flank, but it may be referred to the front of the abdomen, to the umbilicus, to the groin, or to the middle of Poupart's ligament. In the case before us, this pain passed off at the end of three or four days, and this is a common occurrence, but as urine collects and forms a tumor, the pain returns.

In some cases there is hematuria, but frequently there is nothing gained by an urinary examination. When blood is passed with the urine its quantity affords no data as to the situation of the rupture. A priori, we would infer that minute quantities of blood would indicate the ureter as the seat of injury, and profuse bleeding, the kidney, but it is a clinical fact that rupture of the hilum, or even of the parenchyma of the kidney, may be attended with very slight hemorrhage, or even none at all. This leads us to the most important of the symptoms; viz., the formation of a tumor. The time for this tumor to appear varies from a few days to several years. When the rupture is in the ureter, a few days, or, at most, a few weeks will suffice for its formation. When the swelling is due to changes in the kidney, the tumor may not appear until the end of months or even years. In any case, the shape of the tumor is round, oblong or sausage-shaped, following the course of the ureter, and, in most cases, palpable from the abdomen. Palpation readily tells us that the tumor contains fluid; this is urine, urine and blood, or serum. Reginald Harrison has laid great stress upon the character of the fluid which produces the swelling. It is not pure urine, but a harmless fluid which does not work destruction among the tissues as does extravasation of urine in other parts, and it contains little if any urea. He explains this on the theory that rupture of the ureter is not followed by extravasation of urine, as we would naturally suppose. He suggests that rupture is followed by the formation of clots, not only in the ureter but in the corresponding kidney; that these ante-mortem clots are a provision for the substitution of a kind of urine which is incapable of proving destructive to the tissues with which it comes in contact. This is a rather unsatisfactory explanation. In this little girl's case the fluid drawn off on the eighth day was apparently serum, which no doubt was poured out from the capillaries ruptured by bruising of the tissues in the loin. I have no doubt much of the harmless urine found in similar swellings is of a like character. For instance, in Chaput's case, the fluid, withdrawn on the twelfth and fourteenth days after the injury, was sanguinolent and showed fatty globules, altered leucocytes and red blood corpuscles, and was thought to be the fluid of a hematoma on its way to suppuration.

Diagnosis. The diagnosis must rest between simple bruising of the lumbar region, rupture of the kidney, and traumatic contraction or occlusion of the ureter. With absence, or only slight amount of hematuria, and the appearance after three or four weeks of a swelling in the loin, a rupture of the ureter may be suspected. If a tumor forms in the region of the kidney at the end of many months or even years, a history of traumatism, which was unattended with hematuria at the time of the injury, a diagnosis of contraction or occlusion of the ureter may be arrived at. When there is copious, or even moderate extravasation, it is impossible to say whether the rupture is in the kidney or in the ureter. This is of little consequence, as the treatment is the same.

Prognosis must depend largely on whether the injury is intra- or extra-peritoneal. When the peritoneum is involved the result is generally fatal, the patient speedily succumbing to peritonitis, although prompt surgical interference may save his life. In the retro-peritoneal variety, surgical interference promises much, both as regards the immediate restoration of the function of the ureter and the saving of the kidney from the extreme measure, nephrectomy.

Treatment. Theoretically, the treatment of a wounded ureter should be immediate suture of the wound if longitudinal, and anastomosis of the divided ends if there is complete division of the tube. But this is practically out of the question when the symptoms upon which we can form a diagnosis only appear at the end of several days or weeks. The evacuation and drainage of the fluid are often carried out under the impression that the tumor contains pus, and, consequently, the case comes under the operating surgeon's observation after a urinary fistula has been established.

Two operations claim the first consideration: viz., uretero-ureteral anastomosis, and ureterocystostomy, or bladder implantation. When we can choose between the two, bladder implantation is the more satisfactory operation, and is, besides, applicable to a larger group of cases. To connect the ureter and bladder it is essential that the injury to the ureter is not higher than the ileo-pectineal line. When the rupture is above this point the operation is not satisfactory. To carry out uretoro-ureteral anastomosis the ideal conditions are a clean-cut wound of the ureter and freedom from suppuration, but these conditions we seldom find. On the contrary the traumatism which ruptured the ureter may have bruised and devitalized the tube for a considerable part of its length, suppuration and sloughing may have done their destructive work, and thus an insurmountable difficulty presents itself; viz., the impossibility of approximating two healthy extremities of the ureter, without too much shortening of the tube.

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The patient I now present to you is a little girl, referred to me by Dr. Kelsey, of this city, who gives the following account of the injury:

"On the 8th day of March, 1900, A. O., nine years old, was run over or dragged in front of the hind runner of a heavily loaded sled. Dr. Legault and myself were immediately called. Examination revealed no injury, except a bruise on the right side, the patient being in great pain, which was increased by any movement of the body. No hemorrhage from any internal organ at time of injury or subsequently. Patient improved rapidly for four days and was discharged. Was called again on the eighth day and found a tumor below the twelfth rib on the right side. Opened with lance and withdrew about six ounces of a serous looking fluid, which became nearly solid by boiling. The presence of so large a proportion of albumen led us to think it was due to injury to the capillaries. The tenth day Dr. Legault and myself introduced a trocar, drawing out about eight ounces of a similar appearing fluid, and washed out cavity with a strong solution of tincture of iodine. The sac refilled, and on the twelfth day, I made a free incision, establishing free drainage. The discharge now had a strong appearance of urine, and was examined by the writer and Dr. Young, both being convinced it was urine. From this time to the performance of the operation by Dr. J. W. Macdonald the daily flow from the side was about the same as by the bladder, and had every appearance of urine. The odor of napkins being as strong and characteristic as the urine passed by the bladder. There was but a slight elevation of temperature, but little pain after the first three weeks, and the health of the child did not appear to decline."

Dr. E. W. Young, who made an examination of the urine, reports that he found it highly albuminous, containing more than 1½ per cent. of albumin by weight. Urea was abundant, and a microscopical examination showed blood and pus cells.

On June 7th, at Asbury hospital, I operated, and was assisted by Dr. H. B. Sweetser. Chloroform was the anaesthetic employed. An incision beginning at the lower border of the twelfth rib and the outer edge of the erector spinae muscle was extended downwards and forward about an inch in front of the anterior superior spinous process and ended about the middle of Poupart's ligament. The tissues were infiltrated to a considerable extent with pus, and exposure of the ureter was rendered difficult and in some places impossible by necrotic and by cicatricial tissues. The ureter was healthy for about three inches from the kidney, but here sloughing had taken place, and for several inches it was lost in a mass of cicatricial tissue.

After a most tedious search, in which I opened into and closed the peritoneum at three different places, we considered further dissection was useless and deemed it best to remove the kidney. This was accordingly done. The patient made an uninterrupted recovery, is now in excellent health, attends school, and is as active and vigorous as any of her playmates.

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While ureteral anastomosis is the ideal mode of treatment, it is impracticable in certain cases. Too much of the ureter may be destroyed, and the danger of shortening the tube by several inches must not be overlooked. If, as we are led to believe by some reported cases, the normal, healthy ureter can be so stretched as to cause it to tear or even snap asunder, how much more is this likely to occur if the tube is shortened by several inches.

While nephrectomy is not the operation of choice, it still has an important place among our resources, and we cannot afford, as some have suggested, to relegate it to ancient history. Tuffier by experiments in animals demonstrated that the function performed by the kidneys can be carried on without inconvenience as long as one-third, or even one-fourth, of the secreting renal tissue remains. If this estimate is correct, a person could live with only one-half of one kidney. It is astonishing how soon after nephrectomy the remaining kidney takes up its double task, and, although an organ is removed which was once thought indispensable, it is possible for the patient to go through life in excellent health and with less inconvenience than would result from the loss of a leg or an arm.

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## BACTERIOLOGICAL DIAGNOSIS OF DIPHTHERIA.

By J. Frank Corbett, M. D., Minneapolis.

It is generally the custom at the present time to release cases of diphtheria from quarantine after bacteriological examination. Notwithstanding this we still have the disease with us. This I think is largely due to lack of coöperation on the part of the patients in maintaining quarantine. Possibly our system is not yet perfect, and I believe we have much to learn in taking and examining smears. Experience has taught us a great deal. In cases at the quarantine station, at the City Hospital, I have generally taken two smears, one from the surface of the membrane, the other from the inflamed area at the junction of membrane and mucous membrane, in other words at the bottom of the membrane. The result of this was that the smears from the surface were sometimes negative, while those from the deeper parts were always positive. This illustrates how a smear may be so taken as to be of doubtful value. In old cases about to be released from quarantine, we may take the smears on the surface and find no diphtheria bacilli, while smears from some of the nooks and crannies will be positive. This is due to the fact that the diphtheria germs remain alive for a long time in the deep crypts of the tonsil, and in the fold between the tonsil and the pillars of the fauces. For in these secluded positions they are not acted upon by the air and other local antiseptics. More surprising are cases which will apparently clear and then become reinfected. This I believe is due to the diphtheria bacilli getting a foothold in some field adjacent to the throat, such as the antrum, the nasal fossae or the frontal sinus. To illustrate this I have a rather interesting case, brought under my observation by Dr. Barber. This case apparently cleared in about the 26th day. Two swabs were taken, both negative. Later, it was observed that the child infected other children. Smears were then taken from the throat, from the opening of the eustachian tube and from external ear, which was suppurating. The first smear was negative, the other showed diphtheria bacilli. Later the bacilli could be found in the throat. This case had been treated with strong antiseptic mouth sprays, and the bacilli in the mouth had probably incurred but a temporary check. I have records of other cases where the bacilli have disappeared for a time, then reappeared. These statements are proved by a sufficient number of smears to make them reliable. Here

I might mention cases of infection by diphtheria of organs remote from the mouth, such as a suppurating navel cord and the vagina. Nasal diphtheria was at one time common. Smears taken from throats of these cases were often negative.

We occasionally meet with cases that are clinically diphtheria but in which we can not demonstrate the Klebs Loeffler bacilli. In these cases we find a peculiar streptococcus. I have collected a series of fifteen cases to illustrate this point. I do not include in these cases those that on the first smear show streptococci, but only those in which we have even by the most careful examination of repeated smears found only streptococci. Generally in these cases I have made ordinary sowings in blood serum, have taken as many colonies as possible and made separate sowing from each one. In a few instances duplicate smears have been submitted to Dr. Wilson by way of corroboration.

Case I.—Examination from State board—two occasions, returns streptococci. Before membrane appeared five examinations by myself showed almost pure cultures of streptococci, before, during and after membrane had started. This case came from a diphtheria infected school. Five cases of genuine Klebs Loeffler diphtheria were later attributed to this one case.

Case II.—Extensive membrane over tonsils and pillars of fauces. Clinically diphtheria. No cases could be traced to this. Three examinations, all streptococci.

Case III. similar to II.

Case IV.—Infected from case I. Laryngeal. Post mortem showed extensive laryngeal membrane, streptococci on culture. No other cases infected.

Case VI.—Clinically diphtheria. Tonsillar in form—recovery. Streptococci on a single smear.

Case VII.—In same family as VI. Klebs Loeffler bacilli—death.

Case VIII.—Clinically tonsillar and pharyngeal diphtheria. Streptococci from smears taken every few days; at end of third week Klebs Loeffler were found.

Cases IX, X, XI, XII.—Clinically diphtheria; showed streptococci on culture.

Case XIII.—First culture showed streptococci; second Klebs Loeffler.

Case XIV. — Clinically Laryngeal diphtheria. Smears showed streptococci. No improvement under antitoxin. Marked improvement following antistreptococcic serum.

Case XV.—Clinically diphtheria, fauces and tonsils covered; marked constitutional disturbance. Repeated cultures showed Klebs Loeffler bacilli absent.

To analyze these cases, the only ones which showed streptococci on culture, but which I think we might be justified in saying were diphtheria, are cases I. and VI. In case I. very careful examinations were made from repeated smears and by more than one laboratory. From the number that were infected I am inclined to think this case must have been diphtheria. We could find no other source of infection. In case VI. the evidence is not so clear. This may have been a cause. As these cases have been collected from nearly 5,000 examinations, they may be merely coincidences. The work has been done as carefully as I could do it. Therefore, I am inclined to think there is some relation more than mere association between the streptococci of this peculiar form and the diphtheria bacilli.

I do not write this to discredit bacteriologic work, on the contrary, I believe it has come to stay. But the practicable part is this: All cases should be smeared from both throat and nose. Smears should be taken from deeper parts and not from surface. All cases with well marked clinical symptoms, such as extensive membrane extending beyond tonsils, with glandular enlargements, and low form of constitutional disturbance, should be isolated, notwithstanding one or more negative smears. For release from quarantine, not only should the throat and nose be smeared once, but on two separate occasions. Any other suspicious areas should also be smeared and the smears examined.

# *ELEPHANTIASIS OF THE PREPUCE.

By James W. Robertson, M. D., Litchfield, Minn.

I wish to report a case of Elephantiasis of the prepuce in a young man, 21 years old. He came to my office complaining of an inability to pass his water, which had troubled him for 24 hours. I found bladder much distended, fore-skin long and very heavy, and about five inhces in circumference. The skin was in very rough corrugated folds, and in the deep grooves or folds of the skin were collected sodden epithelium and decomposing sebum, which gave off a very offensive odor. The whole enlargement had a feeling of hardness and resistance to the touch, resembling a sarcoma of the skin, and a number of excrescences, which were deeply pigmented and noticeable on the most pendant portions of the prepuce.

I thought at first I had to deal with an epithelial carcinoma or a sarcoma of the skin. It was with considerable difficulty that I could find any opening down to the glans penis. I was not able to find the meatus urinarius, and as the most pressing symptom called for, was the evacuation of the bladder,, I sent patient to the hospital, and immediately proceded to circumcise him. I cut away as much of the fore-skin as possible and found the hemorrhage considerable, the enlarged blood vessels had to be ligated and considerable pressure made to stop the capillary bleeding.

The glans penis was found roughened but not adherent. Upon looking for the meatus none could be found. I then took a long narrow bladed knife and entering the point where the opening should be, gradually pushed it forward for over an inch in a line with the urethra, and then putting in a pointed dilator increased the size of the opening until I could introduce a number 13 sound, this was withdrawn and a silver catheter introduced, and 1½ pints of dark colored urine evacuated. Then I inserted a double catheter and washed out the bladder with a solution of boracic acid. A flexible rubber catheter was then inserted and allowed to remain in the urethra for several days.

The edges of the skin and mucous membrane were brought together and stitched with fine chromacized catgut. A dressing of sterilized gauze was applied, and the wound healed almost by first intention.

I have been obliged from time to time to stretch the stricture which gradually closes down in the manufactured urethra. It has been over a year now, since the operation, and there is no inclination to recurrence, and the case now resembles one of ordinary circumcision.

The history of the case was given about as follows. Since boyhood the patient had had an unusually long prepuce and was never able to draw it back over the glans penis. As far back as he could remember he always had considerable difficulty in urinating, which had been getting worse for several years and had finally closed up entirely. The family history was good. He never had any venereal disease. In fact he never had had any sexual intercourse. He said that within the past year it would oftentimes take him an hour to empty his bladder.

The only cause I can assign for the increase in the amount of connective tissue, the hypertrophy, and pigmentation of the skin, is the constant straining produced by efforts at urination, which had produced a chronic oedema and eczema, which in time had produced the obstruction and enlargement of the lymphatics and blood vessels. I think that in time the skin of the penis and scrotum would have been involved, and we would have had one of those terrible cases of scrotal elephantiasis. Had the tumor been malignant there would have been a recurrence long ere this.

Pifford says: "The affliction is most commonly seen in connection with one or the other of the legs, more rarely of both, the scrotum, prepuce, and the labia,"

Neumann says: "The pigmentation is common in elephantiasis of the prepuce."

The primary cause of stricture of the meatus and outer part of the urethra I cannot account for. Since reporting the above case I have seen another case of stricture of the meatus, probably congenital.

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*Read before the Crow River Valley Medical Society, December 5, 1900.

# THE SURGEON IN WAR.

By Charles E. Hands.

It would hardly become me, I feel, to let off authoritative criticisms on the medical service with the army at the front.

It so happened that one day in May while on the way to Mafeking I succeeded in capturing from some unknown burgher a very fine specimen Mauser bullet, which I kept snugly packed away in the interior of my left thigh, along with some interesting fragments of thigh bone and other valuables.

After that I saw a good deal of surgeons. Within an hour of my adventure I made the acquaintance of as good a surgeon and as fine a sample of a cheerful, vigorous, earnest, enthusiastic Englishman as a compatriot in need of a doctor and a friend could desire to encounter.

A student of distinction at Guy's, Mr. Davies had before the war made for himself the position of leading surgeon in Johannesburg, and when the war came on and the pick of the Johannesburgers enrolled themselves in the Imperial Light Horse, Dr. Davies, who had been one of the leading spirits in the organization, went along with it as its surgeon-major, took part in all its daredevil exploits in Ladysmith, and marched with it to the relief of Mafeking.

Valliant in action, cheerfully patient through the dreary longueurs of siege, exultant on the march or in the assault, hopeful always of a fight, and, above all, prompt and confident and skillful when there was surgeon's work to do, Dr. Davies was a type and example of that most splendid of regiments, the Imperial Light Horse. Well, before I had been an hour proprietor of that bullet I was in Dr. Davies' skillful hands at the field ambulance a mile away. Walking, to a man of my newly-acquired possessions, would have been infra dig. and out of the question. He had me borne upon a triumphal stretcher. He sorted and arranged in order my little museum of fragments of thigh-bone, fortified it with wooden splints, stopped with antiseptic bandages the little hole by which the bullet had entered, made me snug for the night, and when the column moved on in the morning on the last stage of the march to Mafeking, left me comfortable in body and easy in mind in the charge of the two capable and kindly civil surgeons who were serving as his juniors.

After Mafeking had been relieved and the wounded in the fight outside the town had been attended and bestowed in hospital, Dr. Davies rode out to Maritsani to arrange for the removal of the earlier batch of wounded. Then he made a careful examination of my leg, measured it, and, coming to the conclusion that it might do better than it then promised, reset it and applied a new extension splint.

When we got into Mafeking and were lying in hospital, Dr. Davies came again and again, and, being dissatisfied with anything short of the very best treatment, once more reapplied my splints and fixed a heavy sandbag weight to keep a pull on the foot. Later, when once more the column had moved on, Dr. Davies rode back a dozen miles to see if anything more might still be done for his former patients. For me he caused to be made a special slung cradle-splint of iron and canvas, which was as effective as the rigid wooden splint and much more comfortable.

Of course Dr. Davies is a civil surgeon with only a temporary connection with the R. A. M. C. But it would hardly become me to criticise the treatment of the wounded when I myself and those I saw wounded about me were attended on the battlefield by one of the best surgeons in South Africa doing his very best.

After Dr. Davies had gone away with his regiment on General Mahon's march across the Transvaal, I made another surgical acquaintance. I was lying in bed one day minding my bullet, and thinking about the time when I would get up and go for a walk, pondering the terrible abyss of time that stretched between breakfast and lunch, and wondering about all the kinds of things that people wonder about when they are minding bullets, when I heard a strong, hearty man's voice in the house, and there came into my room the most cheerful-looking old gentleman I have ever seen in my life.

A hearty, healthy, vigorous old gentleman, who came bustling in full of life and energy, with a whimsical smile on his shrewdly good-natured, kind, beaming, big, broad, clean-shaven face. The sight of him coming into the room was like I had been thinking it would feel like to go out into the sushine and the fresh winter air.

"Weel," he said cheerily, with a Scotch accept, as he took my hand between his two big firm palms and gently shook it, smiling meanwhile like a benevolent uncle, "weel, I've just come to see how ye're getting on. Eh, but I know all about ye! Eh, my laddie, but they're all verra cansairrned about ye down country there. And I'm glad to see ye."

And he continued to shake my hand and smile, and I smiled back and shook his hand, and said that I was—as was perfectly true—that I was downright glad to see him, although I hadn't the faintest idea who he was, except that I seemed to know at once that he was a great surgeon.

"Then," said he, "I'll just give ye my caird"; and if he had said he would just give me a thousand pounds he could not have said it in a kindlier tone of impulsive benevolence. It brought into my mind somehow the small-boy memory of the good-natured sporting squire who bowled considerate slows to me and laughed with delight when I swiped into his standing corn. I remember saying, "Thank you, sir," as I took the pasteboard he handed me. It said in plain formal type, "Professor John Chiene, consulting surgeon to the forces, South Africa."

Professor Chiene! I had never seen him before, but I had known of him all my life. One of the famous surgeons of the world. Dozens of times I had heard doctors who had been Edinburgh students exchanging pleasant reminiscences of John Chiene. This was a slice of luck indeed.

I said what I had to say, and he went on to tell me that "Airchie Hunter"—that was General Hunter—had given him leave to come up to Mafeking to see if he could be of any service to the wounded lying there. He seemed to think that it was a personal kindness on the part of Airchie Hunter to let him come, and I am sure that he felt positively grateful to the wounded for giving him the opportunity of coming.

But at that time I knew that General Hunter's division was a hundred odd miles away, somewhere on the other side of Vryburg, that there was no railway through, that there were only rough, boulder-strewn tracks for roads, and that the only people on the way were low-class Dutch, who were nearly all rebels and all thieves.

How, then, had he managed to get through to Mafeking, I asked him. Did he have an escort? Oh, no, no escort—capital adventure to come without an escort.

He had made the journey in a sort of rough cart—most enjoyable kind of travelling in a rough jolting cart! One of the horses had broken down—splendid fun! Had slept out on the veldt—glorious sleeping out on the veldt! Never was such a blanket! They got no water one day—extraordinary fun being thirsty! Had given a lift to a belated correspondent on the way—capital chap, that correspondent! Most entertaining companion! Had just got to Mafeking and found a lodging in the remains of what had been an hotel before the big shells knocked the end wall out and the roof off—charming place, Mafeking! Beautiful sight, all that bare sand! Capital taste sand had, too, in your food! And how lucky to find a room in the hotel with the end wall out and the roof off. Most convenient for looking out of! And the ration bread made out of bran! Really most wholesome food and wonderfully agreeable eating!

Buoyant!—why, Professor Chiene would have floated in hydrogen gas. He told me a story about a Scotchman enjoying himself at a funeral, and laughed as he told it, and made me laugh till I could feel my bullet wobbling about in its hiding place. He made me feel so much better that I wanted to get out of bed and practice walking, but he wouldn't let me.

Then, when my doctor came in he got to business. He ceased laughing, and put on a grave, thoughtful, shrewd look, though he still kept a keen, humorous twinkle in his eye, and went into the consultation. He listened alertly to the doctor's description of symptoms, and to my own, and then he put in some unexpected and seemingly inconsequent questoins, which reminded me of something I had forgotten or failed previously to observe. Then he felt over the surface of my leg with finger-tips so sensitive that they almost seemed to see what was underneath, and in a few minutes he knew all about my bullet and my thigh bone, and just what was to be done and when and why. And everything he said turned out to be true, and everything he recommended to be right.

So on the field in the midst of the remote veldt I had been put in the way of good recovery by the best surgeon in South Africa; and while convalescing in Mafeking, which was still cut off from communication, I had enjoyed the inestimable advantage of the advice of one of the most famous surgeons of the world. I know, of course, that Professor Chiene does not belong to the army medical department. But, at all events, there he was—a very important factor in the question of treatment of the wounded in Mafeking.

In course of weeks there came the time when the splints protecting my bullet were to be replaced by a plaster of Paris casing. That brought me another surgical acquaintance. The application of the plaster bandages was directed by Mr. Raymond Johnson, a distinguished London surgeon, consultant and teacher, one of the brilliant staff of the University College Hospital, of the beauty of whose operations surgeons talk in admiring whispers.

A few weeks later the time came for me to be moved down country from Mafeking to the wonderfully perfect Imperial Yeomanry Hospital at Deelfontein.

I was carried from the house to the railway train, and taken the two days' railway journey down country under the personal care of Mr. Alfred D. Fripp, chief surgeon of the Imperial Yeomanry Hospital, and one of the surgical and teaching staff of Guy's Hospital.

Of Mr. Fripp it is not necessary to say anything. He holds the proud position of surgeon-in-ordinary to H. R. H. the Prince of Wales. And I have often had occasion to observe that what is good enough for the Prince of Wales is quite good enough for me.

At Deelfontein the question of the future of that bullet arose. First of all its exact position had to be ascertained. That was done with the aid of the Rontgen rays by Mr. J. Hall-Edwards, surgeon radiographer to the imperial Yeomanry Hospital and to the General Hospital at Birmingham, the first English surgeon to employ the X-rays and the English surgeon most expert and practised in their use. He is not only a qualified surgeon, but a skilled and scientific electrician and an expert and practical photographer, an almost unique combination of scientific and practical knowledge which goes to the making of a perfect X-rays expert.

Then one day I met Mr. Fripp in his operating theatre, and when I woke up he handed me my bullet, and I forthwith proceeded to get well and to begin to learn to walk about.

I might go on to say how the healing of the incision was looked after by Dr. Bruce and Mr. Ransford, of Guy's. I might tell how a knee stiffened by strong and obstinate adhesions was rendered flexible and mobile by constant care and frequent operations on the part of Mr. Fripp himself, Dr. Bruce, and Mr. Ballance, the brilliant surgeon of Norwich who, on Mr. Fripp's return home, succeeded to the distinguished position of chief surgeon of the Deelfontein Hospital. I might brag of the constant daily attention to that stiff knee of Mr. Hale Smith, the most experienced of English massage experts. But this catalogue of magnificences may begin to be wearisome.

I merely say that from beginning to end I had the best surgery that the world could supply, and that if I had been a millionaire at home in Piccadilly, or even the Prince himself, I could have had no better.

And the proof of it is this—that having received a bullet in the thigh, with a compound fracture of the thigh-bone which was sufficiently promising to be officially described as "dangerous," I am now walking about with the bullet ful-looking old gentleman I have ever seen in my life.

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And leaving out of consideration the merits of the R. A. M. C. controversy and the objects and probable findings of the commission, I do desire to say to those who may be anxious as to the welfare and treatment of wounded friends at the front that what I have described as happening to myself was the sort of assistance and treatment that the wounded got at the front at the time and in the places when and where I had exceptional opportunities of observation.

## ANTISEPTIC TREATMENT OF BURNS.

An eminent French surgeon recently concluded an article with the above heading in the folowing words:

1. Fresh, superficial burns, as well as deep ones, can heal under antiseptic treatment without the production of pus.
2. If pus is produced the wound is disinfected, and the course remains the same as if non-infected. But if the pus is of long standing, and the wound begins to granulate, then disinfection is not possible.
3. To disinfect widespread burns an anesthetic will often be necessary, and to this end chloroform is best suited.
4. If the wound is non-purulent, the unnecessary use of an antiseptic hinders the healing process.
5. Antisepsis is the best analgesic.
6. Burns heal rapidly under the antiseptic treatment. Burns of the second degree require eight days; of the third degree, from two to three weeks.
7. Burns of the second and third degree heal without trace remaining; of the fourth degree, cause a scar, which does not retract, while this will be smoother the less the amount of pus.—Ex.

## THE DIAGNOSIS OF POTT'S DISEASE.

By H. Gibney, M. D., New York City.

Dr. H. Gibney read a paper on the Diagnosis of Pott's Disease. The paper was illustrated by the exhibition of photographs and the presentation of patients.

Case I. Cervical Pott's Disease. Girl 8 years of age. Marked deformity from disease of long duration of several of the cervical vertebrae with scars of abscesses below the site of the disease. Treatment had been discontinued in the summer of 1900. The child had worn a head support combined at first with a plaster of Paris jacket, and afterwards with a Knight's spinal brace.

Pain near the seat of the disease, which is often absent in the other regions, is a common symptom in this region, with a sensative area at the side of the neck, severe pain with voluntary motion of the head and neck and apparent torticollis yielding easily to traction applied in such a manner as to hold the head in its normal position. Before treatment, relief was sought by a supporting hand held under the chin. Abscesses are not an uncommon incident of cervical disease, detected by an examination of the posterior wall of the pharynx or burrowing under the superficial muscles of the neck.

Case II. Cervical and Dorsal. Boy

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*Paper read at the meeting of the New York Academy of Medicine, section on Orthopedic Surgery, October 19, 1900.

5 years of age, affected for 2½ years with disease extending from the middle cervical to the middle dorsal region. Two abscesses had opened spontaneously at the sides of the neck under the sterno-cleido-mastoid muscle. He had worn a plaster of Paris jacket and a jury-mast for 18 months.

A grunting noise with each expiration is almost characteristic of caries of the dorsal region and an early diagnosis is greatly assisted by the occurrence of gastralgia and the appearance of a careful gait and a peculiar apprehensive attitude, expressive of timidity and insecurity, and an instinctive desire to avoid disturbance of the diseased vertebrae. The first sign of a Kyphos is seen in a slight angle breaking the long natural curve of the spinous processes observed in profile as the patient lies prone.

Case III. Tenth Dorsal. First Stage. Girl 8 years of age. Under observation since May 5, 1900, and regarded for a time as a case of lateral curvature with a hyper-sensitive, almost neuralgic, condition of the spine. Very recently a suspicious point had been detected at the 10th dorsal and treatment would now be by a Knight's support.

Dr. T. H. Myers said that lateral curvature often attended incipient Pott's disease and obscured the nature of the more serious affection, as had occurred in the present instance. He thought that these doubtful cases should be considered as caries of the vertebrae until a positive diagnosis could be made.

Dr. H. S. Stokes said that in obscure cases of early Pott's disease the plaster of Paris jacket was valuable as a means of verifying the diagnosis. In cases in which there was at first no apparent deformity if the jacket were applied and left on for a time, then removed, the kyphosis, if present, would be seen at once. This effect was seen too soon to be due to further progress of the disease, nor could it be said that the jacket had caused the kyphosis. In a doubtful case, showing no deformity, he would apply the jacket as a diagnostic measure.

Dr. A. B. Judson said that similarly the tumor of white swelling of the knee became more obvious soon after the beginning of mechanical treatment, probably from pressure and restraint applied to the soft parts.

Dr. Gibney resumed his presentation of patients as follows:

Case IV. Dorso-Lumbar. Girl, 2½ years old, affected with disease of the dorso-lumbar region of 9 months' duration. No abscesses. The spine had the marked rigidity which attended disease in this region and marked gastralgia had been a part of the history of the case. A plaster of Paris jacket had been applied at first, but lately a recession of the deformity had been observed to follow the strict application of a Bradford frame.

Case V. Eleventh Dorsal—Third Lumbar. Girl 13 years old who had recently come from Russia with a very marked kyphos. But little had been learned of the history and treatment. Sinuses were discharging at points where abscesses had opened spontaneously. The gait and attitude were very characteristic of disease in this region. A Knight's support had been applied and as the child's general condition was fair, the prognosis was good.

Dr. Myers said that the characteristic attitudes of Pott's disease, although early and important signs, were also seen in osteitis of a syphilitic or malignant origin. It was, therefore, important to consider the personal and family history, the age, the location of the disease and the mode of onset as well as the pain and tenderness. The fourth patient presented had been free from pain in the abdomen and legs. Pain in the terminations of the nerves was not so early or so prominent a symptom in the lumbar as in the dorsal region, while local tenderness was more apt to be recognized in the cervical region, where the affected parts could be more easily palpated than in the other spinal regions. In the cervical region the vertebral articulations might become infected by organisms gaining access from the pharynx after measles or scarlet fever with resulting muscular spasms and malpositions of the head simulating those of Pott's disease, and it might be a long time before it could be decided that a post-pharyngeal abscess had its origin in vertebral caries. A long time might also elapse before it could be known that a traumatic osteitis in the cervical or lumbar region had attached to my watch-chain, and my leg none the worse for the adventure.

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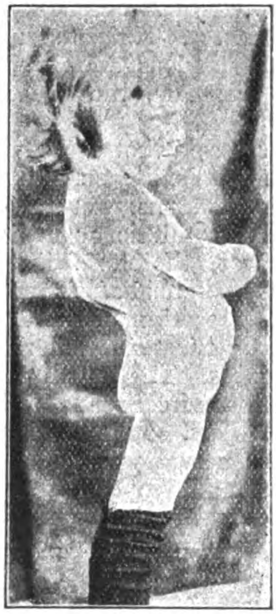
Case IV. Dorso-Lumbar. Girl, 2½ years old, affected with disease of the dorso-lumbar region of 9 months' duration. No abscesses. The spine had the marked rigidity which attended disease in this region and marked gastralgia had been a part of the history of the case. A plaster of Paris jacket had been applied at first, but lately a recession of the deformity had been observed to follow the strict application of a Bradford frame.

Case V. Eleventh Dorsal—Third Lumbar. Girl 13 years old who had recently come from Russia with a very marked kyphos. But little had been learned of the history and treatment. Sinuses were discharging at points where abscesses had opened spontaneously. The gait and attitude were very characteristic of disease in this region. A Knight's support had been applied and as the child's general condition was fair, the prognosis was good.

Dr. Myers said that the characteristic attitudes of Pott's disease, although early and important signs, were also seen in osteitis of a syphilitic or malignant origin. It was, therefore, important to consider the personal and family history, the age, the location of the disease and the mode of onset as well as the pain and tenderness. The fourth patient presented had been free from pain in the abdomen and legs. Pain in the terminations of the nerves was not so early or so prominent a symptom in the lumbar as in the dorsal region, while local tenderness was more apt to be recognized in the cervical region, where the affected parts could be more easily palpated than in the other spinal regions. In the cervical region the vertebral articulations might become infected by organisms gaining access from the pharynx after measles or scarlet fever with resulting muscular spasms and malpositions of the head simulating those of Pott's disease, and it might be a long time before it could be decided that a post-pharyngeal abscess had its origin in vertebral caries. A long time might also elapse before it could be known that a traumatic osteitis in the cervical or lumbar region had become tubercular. There were absolutely no pathognomonic symptoms.

Dr. J. P. Fiske said that he had not as yet seen a case of traumatic spine go on to tubercular caries.

Dr. Judson said that Pott's disease presented some unexpected features, such as the occurrence of pain in the front of the trunk while the disease was in the back. Some patients also with serious and purulent destruction of bone maintained the appearance and general ability of robust health. This affection, justly compared with fracture of a central and most important part of the skeleton, was as a rule so free from local pain and disability that when these symptoms were persistent and exaggerated Pott's disease gave way to malignant disease of the vertebrae as a probable diagnosis.



EQUILIBRIUM DISTURBED BY KYPHSIS OF POTT'S DISEASE AND RESTORED BY LORDOSIS.

Dr. Myers said that the diagnosis of the latter affection would be assisted by consulting the following clinical features: Rapid emaciation and loss of strength, every motion exquisitely painful, pain constant but motor paralysis less constant, marked muscular rigidity, kyphosis absent or late in its appearance, occurrence at any age.

Dr. Fiske said that as they all had deformity the presentation of these patients failed to throw light on the most important question, that of making an early diagnosis. Diagnosis before deformity was an extremely difficult thing, and proportionately important and desirable. Suspicious spinal symptoms might be produced by rheumatism, by neurotic reflexes, myositis following a blow or by some other and more obscure muscular lesion. He had seen cases in which circumcision had dissipated spinal symptoms which had been hard to interpret. Muscular spasm or spinal rigidity could not alone support a diagnosis of tuberculosis of the spine.

Dr. C. R. L. Putnam recalled the history of a case which he had observed in a foreign hospital. A man, 45 years of age, totally paraplegic, was thought to have disease of the first and second lumbar vertebrae with a tubercular abscess pressing on the spinal cord. The removal of two laminae revealed the presence of an echinococcus cyst behind the theca. The result was unfavorable.

Dr. Myers had seen a tumor of the lower cervical cord produce not only symptoms of pressure on the cord but also the local pain and muscular rigidity which usually attend vertebral disease.

Dr. F. A. Goodwin, of Susquehanna, Pennsylvania, said that railway brakemen, from their custom of jumping off and on trains in motion, frequently received spinal injuries accompanied by rigidity, pain on pressure, and other symptoms of true Pott's disease. Perfect rest for a long time, however, almost always cleared up the diagnosis. It had been his misfortune to see a number of patients in whom the diagnosis of Pott's disease had been inexcusably postponed by eminent authorities. He instanced the history of a little boy who had been treated for asthma and other affections without an examination for kyphosis, which had existed to a marked degree for a long time, during which grunting expiration, pain, inability to stoop, and rigidity of the spine, had been obvious features of the case. On the other hand, he had made a diagnosis of Pott's disease in a little girl who had a board-like rigidity of the spine. She could not stoop to pick up a coin from the floor without putting a hand on the knee for support. Her recovery without treatment was explicable by the supposition that there had been synovitis of the costo-vertebral and costo-transverse articulations. He thought that a diagnosis before the appearance of deformity was exceptional and recognized the inherent difficulties of the situation.

Dr. L. W. Ely referred to the opinion which prevailed among general practitioners that Pott's disease in the dorsal and lumbar regions was attended by sensitiveness to pressure on the spinous processes. Although this supposition was not unreasonable, in view of the nature of the lesion, the fact was that this symptom was of very rare occurrence. Running the fingers down the spinous processes in a doubtful case was of almost no value in making a diagnosis.

Dr. G. R. Elliott said that in a rapid carious process we had the full quota of symptoms clearly defined while a slow morbid action gave but few and obscure indications The X-ray had been a disappointment in this field. It had failed to reveal a deposit before the appearance of deformity. What was desired was an early diagnosis, a diagnosis before deformity which, of itself, made the diagnosis without the assistance of symptoms or any other signs. A most important early symptom was abdominal pain. How often are we told of the postponement of a spinal examination in favor of treatment for intestinal disturbance until an early diagnosis was impossible. A child should be examined with all the clothing removed. In no other way could the obscure signs be recognized. The enlarged abdomen was another important early sign. The contraction of a psoas muscle, exposing one to the risk of a faulty diagnosis of hip disease, might be the earliest sign of Pott's disease. He recalled the case of a child who was said to have cervical caries of two months' duration following scarlet fever with rheumatism. There was painful spasm of the muscles of the neck, the head resting on the shoulder and a hand supporting the chin. The symptoms all disappeared without fixation after treatment by simple suspension. On the other hand a patient with supposed rheumatism of the spine, whose symptoms included pain in the back, stiffness and misunderstood reflex spasm, was bathed, rubbed and shaken up for three months and, after vigorous anti-rheumatic treatment had lasted for a year, the appearance of kyphosis determined the diagnosis.

Dr. Gibney said that photographs clearly presented the attitudes but failed to display the characteristic movements and deportment of the patient affected with Pott's disease. There was in his collection, however, one which graphically copied (see the accompanying figure) the over-erect attitude which was assumed by the patient's entire figure and threw light on the mechanism of the production of the lordosis which appeared as a compensating curve below the kyphos.

## CHRONIC CONSTIPATION OF CHILDREN.

H. Doerfler states that chronic constipation in otherwise healthy children, is in most cases, not a disease but an obstruction of the intestines from too much food. This condition can be simply and effectively terminated by giving the child fresh butter, a half to a teaspoonful during the first two or three months of life until normal defecation is restored, and then this dose every second day. Between the third and fourth month give two or three teaspoonfuls a day until relieved, and then every second or third day. From five months to a year one to three tablespoonsful every two or three days; over this age give as needed. The butter must be given unchanged; not warmed nor mixed with any substance, as this alters its composition. In an experience of six years every child has taken the butter with relish without exception. It increases the nourishing elements of the food in small compass, and is the nearest approach to milk; a part is readily assimilated and the rest is eliminated, stimulating peristalsis as it passes through the intestines. Pale, pasty children become red-cheeked and hearty, and the benefits of this butter treatment are evident up to the fifth and sixth year.—Jour. A. M. A.

# MEDICAL DIAL

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**JANUARY, 1901.**

## THE MEETING OF THE WESTERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

One of the most successful medical gatherings ever held in Minneapolis is that of the Western Surgical and Gynecological Association, which is bringing its labors to a close as we go to press, In our next issue we shall give a full report of the proceedings.

This society is already a strong rival of the Southern Surgical and Gynecological Association, and if it continue in its present vigorous condition it will cause the Eastern Association to look well to its laurels. One of the features of the Western is the earnestness of its members. No time is lost in loitering about smoking rooms or lobbies. The meetings open with business-like punctuality, a long-winded essayist is called to order when he exceeds his allotted time, while the way in which the president urges the members to discuss the papers promptly and lose no valuable time in waiting for one another, would do credit to a Methodist prayer meeting. Another praiseworthy feature of the meetings is the absence of cliquism, that common curse of medical societies. So far this society is free from that baneful influence; if it can remain free and keep the medical politician "quelled," its success is certain.

Many interesting and valuable papers were read, and when we consider that the meetings were attended by the pick of the profession from Chicago, Omaha, St. Louis, Sioux City, St. Joseph, Minneapolis, St. Paul, and other western centers, it goes without saying that the discussions were able and spirited.

Much of the success of the Western Surgical and Gynecological Association is due to the untiring efforts of its able secretary and treasurer, Dr. Simmons. The retiring president, Dr. Campbell, of St. Joseph, has discharged his duties admirably, and has won the esteem of all by his happy blending of the "Suaviter in modo" with the "fortiter in re."

Chicago was chosen as the next place of meeting in December, 1901, and the following officers were elected, Dr. A. F. Jonas, Omaha, president; Dr. A. W. Abbott, Minneapolis, 1st vice-president; Dr. C. E. Ruth, Keokuk, 2d vice-president; Dr. G. H. Simmons, Chicago, secretary and treasurer; Dr. A. B. Campbell, St. Joseph, Dr. H. C. Crowell, Kansas City, Dr. Jno. P. Lord, Omaha, Dr. James E. Moore, Minneapolis, Dr. M. L. Harris, Chicago, executive committee. Dr. Jno. B. Murphy was elected chairman of the committee on arrangements for next annual meeting.

## THE PROBABLE FUTURE OF SUBARACHNOID INJECTION OF COCAINE.

The discovery of the analgesic effect of cocaine when injected into the spinal cord is now by universal consent accorded to Dr. J. Leonard Corning. Tuffier has perhaps been its most enthusiastic advocate, but as time goes on less optimistic reports are coming in. Severeanu has reported an extensive series of operations on the abdomen and lower extremities. Out of seventy attempts to produce analgesia by spinal puncture he reports two cases of complete failure, due to the presence of alarming collateral symptoms, such as great weakness, persistent emesis, etc.

Pitesci, another Roumanian surgeon, reports many cases with the following discouraging results; in eighty per cent. there was some form of collateral intoxication; in three per cent. the symptoms were of a character distinctly pernicious; in the remaining fourteen per cent. the most satisfactory surgical analgesia was produced. Pitesci makes the startling assertion, which he has demonstrated by experiments, that repeated cocainization of the cord results in acquired tolerance. He also insists upon the danger of using the method in cases of renal disease or in cardiac and arterio-sclerotic cases.

This takes away much of the charm of the new method of producing analgesia, for the first idea that struck most of us was that we now had an agent which could be fearlessly employed for cases in which chloroform and ether were contraindicated. Another disadvantage connected with spinal cocainization is the limited duration of the anesthesia. It may be roughly stated that it cannot be employed in operations lasting more than an hour, nor when the field of operation is above the level of the diaphragm. The operation of spinal puncture is of itself not free from risk. A few years ago surgeons looked upon the air as the most dangerous source of infection; now the skin must be regarded as the most subtle hiding place of bacteria. Puncture of the spinal canal, unless the utmost care be observed in sterilizing the needle and disinfecting the skin, is a risky proceeding. The surgeon trained in aseptic technique may be depended upon to carry out the necessary details, but the new method is likely to be adopted by many well-meaning men whose methods are not marked by overscrupulous surgical cleanliness. The consequences are appalling to contemplate. Once infect the spinal canal with septic bacteria, and the patient is doomed. If the surgeon meets with trouble in the administration of chloroform or ether he can act with promptness and perhaps save the patient from the very jaws of death; not so with septic infection resulting from spinal puncture. Treatment is of no avail, and he can only look helplessly on, tormented, then and ever after, with the reflection that with a different anesthetic he could have carried his patient through in safety. One of the claims made for the new method is the preservation of the patient's consciousness during the operation. The writer has conversed with many persons, and has come to the conclusion that the majority of patients would prefer to be unconscious when operated upon. Indeed those who are old enough to remember the horrors of pre-anesthetic days will readily concede that one of the most humane features of anesthesia is the blissful unconsciousness during, and the happy awakening after a most frightful ordeal.

Altogether we feel that the field for spinal anesthesia is extremely limited, is not free from danger, and is destined ere long to fall into disuse. Above all things we would warn our readers against the temptation to use this or any other procedure simply because it is a new and startling departure from the well beaten path. Corning had the genius to discover spinal anesthesia by cocaine, but he had also the good sense to discontinue its use for surgical purposes.

## THE SMOKE NUISANCE.

There is said to be a city ordinance in Minneapolis to compel individuals and corporations to suppress their smoking chimneys, and occasionally the legal guardians of the public health have a spasm (presumably when they have caught some cinders in their eyes), and they threaten to enforce the law on the negligent parties; but so far all threats have ended with the spasm, as no action has been taken, and the chimneys continue to belch forth the black clouds of filth and smut.

There are three prominent considerations, and perhaps more, concerning these smoking furnaces: First, the disagreeable odor and the menace to health by breathing the air polluted by these inky substances of nastiness; second, the great waste of fuel, which if it could be fully appreciated by the owners would seem sufficient incentive for them to make some efforts to stop so large a leak in their incomes, even in these prosperous McKinley times of successful business; and, thirdly, the enormous damage to goods in shops of almost all kinds of merchandise exposed in windows for sale.

Is prevention possible? Certainly, to a very large extent. There are many inventions on the market as smoke consumers; some of them expensive, some useful no doubt, and many useless probably; but the real remedy rests mostly with the firemen; they are the machines to deal with, and they are the regulators that need regulating. To save time they will fill up their fire boxes with large quantities of coal at long intervals, and cutting off all admission of air except at the bottom of the furnaces, allow the fire to smoulder and burn, giving off a large proportion of the fuel in wasteful smoke; if on the other hand a little more time and strength is given to spread often a thin layer only of coal on a bright and lively fire, there will be very little smoke or waste of fuel. But under existing conditions great flakes of unburned and scarcely warmed coal are carried away to settle about the city, which in time may become a veritable coal mine if not removed by rains and street sweepers. If all the sufferers would combine and move together in earnest against this nuisance it would be abated, and the city become bright and cheerful in its aspect.

## THE SAMUEL D. GROSS PRIZE.

The value of the next prize to be awarded Oct., 1901, will be $1,000, no essay received January, 1900, having been deemed worthy of award by the trustees. The conditions of the prize are that "It shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in surgical practice or surgical pathology, founded upon original investigations, the candidates for the prize to be American citizens." There are other expressly implied conditions, such as the obligation upon the part of the receiver of the prize to publish his essay in book form and deposit one copy of the work in the Samuel D. Gross library of the Philadelphia Academy of Surgery, and that the title page shall state that the essay was awarded the Samuel D. Gross prize of the Philadelphia Academy of Surgery. It is required that each essay must be written by a single author in the English language and sent to the "Trustees of the Samuel D. Gross prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 S. 13th Street, Philadelphia," on or before October 1, 1901. Each essay according to the usual custom must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay, and the committee will return all unsuccessful essays to their respective authors, or their agents, within one year if reclaimed. The right to make no award is reserved by the committee if the essays submitted are not considered worthy of the prize.

It would seem that the above amount of prize money would stimulate workers in surgical practice to make strenuous efforts to secure success.

## POISONED BEER IN ENGLAND.

The beer drinkers of England are now suffering from arsenical poisoning, from which many have died and many thousands made ill. "25,000 barrels of beer have been seized, condemned and their contents poured into the street." The poison is said to arise from the substitution of glucose or corn sugars treated with sulphuric acid for harmless malt and hops. Although the glucose treatment is an American invention, thus far no poisoned samples of American glucose have been discovered. It is possible that more care has been exercised in the manufacture of beer in this country than in England, as it is quite certain that the glucose product has been put on the market here, but no panic has been created and no poison experienced. Modern chemistry has wonderfully improved old-fashioned products, reducing the cost without deteriorating the quality.

## A SPECIFIC FOR YELLOW FEVER.

One of the most glorious triumphs of medicine in this century is the discovery by Dr. Bellinzaghi, an Italian bacteriologist, of a specific for yellow fever. The disease ever since its first recorded appearance in Barbadoes in 1647, has been the terror of tropical countries, and Mexico has been a sufferer to an especial degree. Hence it was that some years ago the Mexican government offered a prize of $100,000 for the discovery of a specific for yellow fever. There were many competitors for the prize, and at various times patient and long continued experiments were carried out, but all were unsuccessful. During the past summer Dr. Bellinzaghi, one of Pasteur's brilliant pupils, carried on at Vera Cruz, a series of investigations under the auspices of the government board of health, has solved the mystery and will soon receive the prize.

The mortality in yellow fever has always been high, seldom below 20 and frequently as high as 50 and even 80 percent. It is customary to divide the disease into three stages. (1) The paroxysm, consisting of a cold period, followed by a febrile reaction. This stage lasts until the fourth or fifth day when the patient reaches the (2) second stage or "stage of calm." The fever subsides, and in very mild cases convalescence here begins. The duration of this stage runs from a few hours to two days, seldom longer. The third stage is characterized by a tendency to hemorrhages from mucous membranes and suppression of urine. Bleeding from the stomach is very common, and is well known under the name of "black vomit." Suppression of urine in this stage is invariably fatal. Dr. Bellinzaghi's specific is an admirable example of the success of serotherapy. In the military hospitals of San Sebastian the serum was successful in 85 per cent of the cases. When resorted to in the first stage of the disease the patient was convalescent in from one to four days, and recovery was rapid and complete. In the second stage the serum arrested the disease in from four to eight days. Even in the third stage and when suppression of urine was complete, several cases were saved by the serum.

Dr. Bellinzhghi explains the theory of his discovery as follows:

" The sero-therapeutic treatment of disease originated in the theory of immunity from its own property from bacteria. Biological law teaches that each microbe produces in its cultivation substances capable of opposing its development or neutralizing its action. Roux, in the Budapest congress thus explains the formation of anti-toxins:—'The anti-toxin (anti-poison bacillus) is derived from the toxin (poison bacillus), by a transformation in the organism. This is proved by the similarity of the toxin and anti-toxin.' Therefore, the quantity of anti-toxin in the blood has to be in proportion to the introduced toxin.

"The toxin works as an excitant upon the cell which secretes the anti-toxin. That anti-toxin is a cellular product was proved by Klemperer, who found that the yolk of an egg immunizes its anti-toxin, whereas the white does not. The theory of the yellow fever serum is that of immunization in the cell by anti-toxin and the excitant property of the phagocytes, two factors which enter simultaneously into play for the deience of the organism.

"The black vomit is a predominant symptom of the disease, due to the emetic properties secreted by the specific bacillus. The first vomits in the sickness are alimentary, afterward mucous and last bilious. The gastrorrhagia or black vomit, is due to the grave symptoms produced by the toxin upon the gastric mucosa, which causes an extravasation of the blood in the gastric organism.

"The action of the gastric juice upon the blood which has penetrated into the stomach brings on the gastrorrhagia. Although yellow fever, from the point of view of its symptomatology, is a protoform disease, nevertheless there is always vomit. Enterorrhagia (emissions of blood) and gastrorrhagia are sometimes absent, but vomiting never.

"The first injection of the serum not only stopped the vomit but steadied the heart's action, diminishing the pulse and augmenting arterial tension.

"Death from yellow fever is produced from three causes:—First, by the primary infection, produced by the toxin secreted by the specific bacillus. Second, by the secondary infection before the specific bacillus has finished its cyclic evolution caused by the deep lesions produced by the toxins in the liver. The liver is considered one of the principal means of defence against the different microbian growths. When lesions appear in it the organism is invaded by numerous microbes, which take the life of the patient by septicemia. Third, death also can be produced by poisoned urine.

"In fatal cases of yellow fever the predominant symptom is insufficient action of the kidneys and poisoned urine.

"In the epidemic in which I made my experiments with the anti-yellow fever serum, according to the declaration of the commission nominated by the Board of Health of Mexico, this was the predominant symptom. The action of the serum in the most aggravated cases was to restore normal action of the kidneys with from one to three injections.

"The action of the serum upon the headache, the spinal pains and the pains of the lower limbs is rapid. They invariably disappeared within a few hours after the first injection.

"The action of the serum upon the temperature of the patient is parallel to its action upon the pulse.

"The injection of the serum early in the course of the disease is imperative. In the cases where the injection was made during the first period of the sickness—that is, before there were any appreciable lesions in the hepatic apparatus—the progress of the disease was stopped in from one to four days. In cases where there were serious lesions it required from four to eight days to stop the disease, and the danger of mortality in such cases is much greater."

## SUBARACHNOID INJECTION OF COCAINE IN OBSTETRIC PRACTICE.

Dr. Hugo Ehrenfest of St. Louis (Med. Record, Dec. 22d) makes some timely remarks on the subject of Medullary Narcosis in obstetrical cases, in which he says:

"The two main indications for the employment of subarachnoideal injections of cocaine in obstetrical cases are, first, to produce a painless labor in normal cases, and, secondly, to substitute this method for other forms of narcosis when such is deemed necessary. To produce painless labor seems to have been the predominant idea in the experiments so far made. Doléris and Malarctic concede this as their object. Marx says: 'But at last, so far as we are concerned, it is a method ideally suited to mitigate or absolutely allay the dreadful pains of a normal labor.'

"To accomplish such a purpose, however, according to my opinion, we must make use only of a method—(1) which does not carry with it too great danger for either mother or child, (2) which does not produce conditions more disagreeable than the pain that we are endeavoring to assuage, and (3) which does not produce complications during parturition, i.e., does not change a birth, which under ordinary circumstances would be normal, into instrumental delivery. In reference to these three points I would like to make the following comments:

"1. No one should at present state that medullary narcosis is a harmless procedure. An exact opinion with reference to this point can be arrived at only after the above-mentioned statistics of morbidity and mortality are established. 2. All reports tell of disagreeable symptoms following these injections, viz., vomiting, intense headache, etc., sometimes lasting longer than after the usual chloroform or ether narcosis. Cases of immediate high elevation of temperature with deep collapse are on record: such a great risk, indeed, does a woman take in exchange for labor pain. 3. This point is by far the most important, and necessitates a further discussion. Most of the authors (Kreis, Doléris, Malarctic, Marx) state that the uterine contractions were observed during anæsthesia. According to their observations there seems to be no change in their frequency, but of course whether their active power is of the same value during the anæsthesia remains to be determined. One thing, however, is positive—the active help of the abdominal muscles is lacking. Naturally the patient can bear down when asked to, or when she herself is so inclined, as strongely as under normal conditions, but as a consequence of the painlessness the reflex action is not brought on, which causes the automatic help of the abdominal muscles, nor is the woman able to bear down synchronously with the uterine contractions, since she does not feel them. From our knowledge, based on modern views of the great importance of abdominal pressure in the last stage of labor, we should consider its loss to be a very decided disadvantage.

"Schroeder was the pioneer in demonstrating by clinical studies the necessity of the help of the abdominal muscles in the expression of the fœtus. At the present time his opinion is generally accepted and is to be found in the principal text-books.

"Olshausen and Veit say: 'When the delivery approaches its close, and when especially this termination is a difficult one, then the abdominal pressure becomes more important, while the effect of the uterine contractions becomes less.' On page 587 we find the following statement: 'Complete deficiency of abdominal pressure during the expulsive stage is fortunately very rare. There are only a few records of deliveries in cases of paralysis of the lower part of the body. But in these cases the second stage of parturition seemed to be very much delayed.' Probably in those cases the paralyzed perineal muscles offered less resistance to the child's head. This advantage is lacking in medullary narcosis.

"Ahlfeld expresses the following opinion: 'During the last (second) stage of parturition we can only consider the effect of the abdominal pressure, the influence of the uterine contractions being very inferior to it.' 'A primary inability to use the abdominal muscles is rare, but even in entirely healthy parturients the inactivity of these muscles sometimes disturbs the normal course of labor to a very marked degree.'

"Schatz and Poullet endeavored to measure the abdominal pressure by means of a manometer, and demonstrated the fact that during the expulsive stage the pressure produced by the abdominal muscles is nearly as great as that of the uterine contractions.

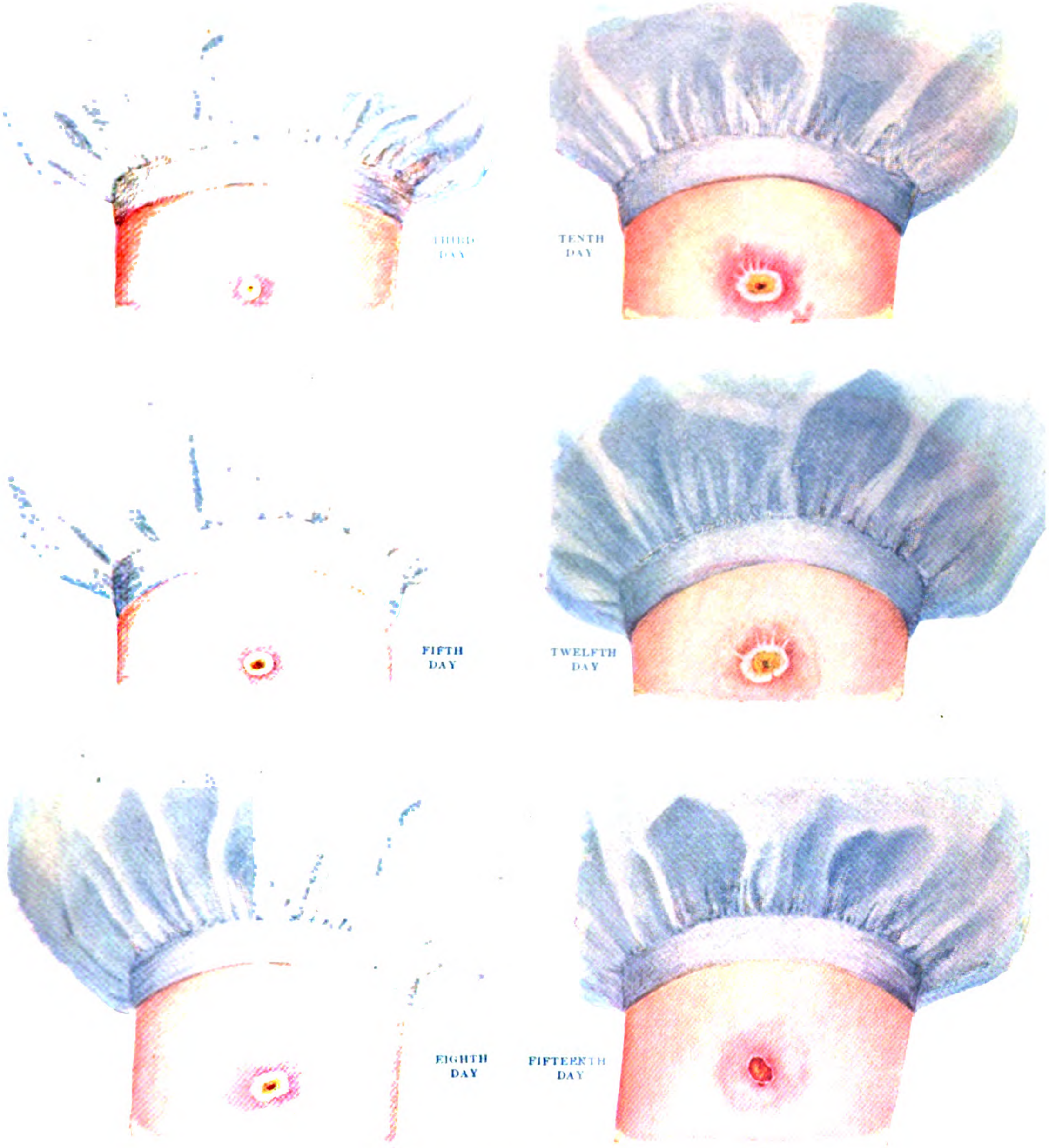
"Galabin says: 'The effect of the auxiliary muscles is therefore to add to each of the resultant forces already mentioned. It has also another influence of great practical value, namely, that it tends to press the uterus, as a whole toward the pelvis. This takes off the tension placed by the uterine contractions on that lower distensible uterine segment, which * * is the part of the uterus most liable to rupture. Thus the tendency to rupture of the uterus is resisted by an efficient action of the auxiliary muscles, and is more likely to occur if the abdominal walls are weakened.'

"In Hirst's 'System of Obstetrics' (Philadelphia, 1888) Parvin in his work says: 'These [abdominal] contractions are chiefly voluntary, only at the close of the second stage of labor do they seem to escape entirely, or almost entirely, the dominion of the will. Such contractions exerted during the first stage of labor, and usually in the second stage, if not synchronous with uterine action, are worse than useless.'

"I could recall easily a larger number of opinions of well-known authors, all expressing the same idea on this subject. By studying the histories of the obstetrical cases in which medullary anæsthesia was employed the correctness of these views, to my mind at least, seems to be proven. I have taken into consideration only those cases in which there exist tolerably exact histories, viz., the six cases of Kreis and twenty-three cases of Marx. Out of the six cases of Kreis it was necessary to finish three by means of forceps. The causes assigned were: in one case exhaustion of the mother and insufficiency of the labor; in the second, symptoms of asphyxia of the fœtus; while in the third no cause is mentioned. Among the twenty-three cases of Marx there were twenty-one cases of labor. Of these it was necessary to apply forceps in seven cases. Unfortunately, the indications for this procedure are not mentioned. However, it is worthy of note that the three operative cases of Kreis and these seven of Marx were in primiparæ. The non-elasticity of the perineum—as characteristic of primiparæ—may have made the last stage of confinement more tedious, the abdominal pressure not exerting a helping influence. Of the subsequent nineteen deliveries in which medullary narcosis was employed by Marx, in nine were forceps used. Naturally, as we have no data giving in detail the indications for the use of instruments in each case, we are at a loss to draw correct conclusions. At any rate the remarkably high percentage of forceps deliveries is very striking, particularly when there is no note of any abnormalities of either the pelvis or the child. At least it is supposed that none existed, as otherwise they would have been reported in the histories.

"According to my view it is very necessary in future descriptions of confinements under medullary narcosis, in which obstetrical operations have to be performed, to give exact details of the indication of each operation, to remark all abnormalities of they exist.c wh ic all abnormalities in the course of confinement, such as marked delay during the

THREE-COLOR REPRODUCTIONS FROM LIFE, SHOWING CYCLE OF VACCINATION; TYPICAL VACCINE VESICLES FROM INOCULATION TO CICATRIZATION, FOLLOWING THE USE OF GLYCERINIZED VACCINE LYMPH.



THIRD DAY

TENTH DAY

FIFTH DAY

TWELFTH DAY

EIGHTH DAY

FIFTEENTH DAY

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expulsive stage, excessive stretching of the lower segment of the uterus, rupture of the uterus, etc. It is also indispensable to measure the diameters of the pelvis and child's head, to describe the forms of both, and to make note of all abnormalities if they exist.

"Should we, however, prove that the parturition is in nowise harmed by medullary anesthesia, such a discovery would be of the greatest scientific interest, forcing us, as it would, to change our opinion with regard to the value and importance of abdominal pressure.

"On the other hand, should we find out that we are compelled to make use of the forceps more often than under the usual conditions, as a consequence of the deficiency of a normal automatic help of the abdominal muscles, this condition alone would contraindicate the use of medullary narcosis as a means of making a normal labor painless. Notwithstanding the best anti- and asepsis, subsequent puerperal or gynecological diseases are invariably more frequent after delivery by operative procedures.

"The second indication for the use of cocaine anæsthesia of the spinal cord, as before mentioned, is as a substitute for other narcosis in cases in which such a procedure becomes necessary either for purposes of examination or operative work. In regard to this indication the remarks I made in discussing points 1 and 2 (danger to the patients and disagreeable symptoms) are to be taken into consideration. I would add to those only the statement of Marx, in which he says: 'Explorations, versions, extractions, placental removal, were readily done not with quite as great ease as under chloroform.'

"In the event that future work along this line establishes the fact that subarachnoideal injections of cocaine are free from danger, they may add some advantages in cases in which heart failure, nephritis, etc., contraindicate the use of chloroform or ether. In country practice it might prove profitable, as one assistant—the anæsthetist—could be spared (Kreis). So, in conclusion, it seems to me more than doubtful whether we are justified at the present time in recommending medullary narcosis as a means of rendering normal labor painless or as a substitute for light chloroform narcosis, which is always sufficient for the usual obstetrical operations."

## EARTH-LIFE-CHARM.

Half-bald silver remnant loose lying on the pillow,
Face wan, lean, wrinkled,
With smiles inwoven,
The old grandmother lay awaiting my call.

* * * * *

I sat by the bedside,
I read the vibrant dispatches that her pulse clicked off for me,
I listened to the inarticulate story of her mailed herald,
I noted mercurial indications,
I studied biography and balanced hereditary accounts,
I gave orders for the preparations of cast off matter for analytical processes,
I was silent and listened,
I percussed and listened,
I cussed not, although cussing and percussing are frequently close neighbors,
I took her hand allowing the life currents to connect,
I received the nerve impressions from every organ of her body,
I was pregnant with diagnosis and prognosis.

* * * * *

She had seen much joy, some sorrow in her span.
These had passed as the leaves fall,
Her vision had dimmed in the latter years, as long use dulls the sharp instrument,
Children and grandchildren had answered the death-angel-call,
Friends had gone before, and pleasures of association had died with them.

* * * * *

At the gate of Lakewood,
Fain of fellowship of strangers, even God's children,
She would live longer,—"Doctor, I wish to live to see what my grandchildren will do. Can you cure me?"

* * * * *

Poor woman! Good mother!
Holy angels break the earth-life-charm.
Go in peace! anticipation!!

Lyman W. Denton.
Minneapolis, Minn.

## THE BATTLE WITH A GREAT SCOURGE.

(Minneapolis Times, Dec. 16, 1900.)

Medical writers, conservative at all times, taking nothing for granted and never accepting reports of "cures" without scientific investigations, have announced within the last few years that consumption is both preventable and curable. Years ago so discouraged were physicians in this regard that some of them were prone to dismiss the report of a recovery from that dreadful disease with the dictum, "If it was cured it was not consumption." They were almost tempted to make "incurable" a part of the very definition of the disease, so hopelessly unconquerable did the malady seem to be. The healing art never surrenders. It has triumphed against other foes, and its hopeful disciples have even held that some day the great scourge of tuberculosis of the lungs would be brought under scientific control, its ravages greatly reduced and many of its victims cured.

Now comes the assurance that in certain classes of cases treated, absolute cures have been effected in 14 per cent., relative cures in 14 per cent., and amelioration in 42 per cent.

Consumption is a communicable disease, and therefore the chief hope rests upon prevention. How is this to be effected? In a paper "On the need of Sanatoria in the Treatment of Pulmonary Tuberculosis," by Dr. J. H. Stuart in the Medical Dial, the sanatorium plan seems to find general favor with the faculty. Treatment in an institution can be made much more effective than in the home, for obvious reasons. There are private sanatoria, accessible only to the well-to-do. Would it not pay the state, as a measure of self defense, to provide retreats for consumptives, as it has for other classes of the physically or mentally unfortunate? The Times is not prepared to say that the pine forest would be the ideal place for such an institution, or, on the other hand, that it should be situated in Minneapolis or St. Paul, or between the two cities. In favor of the latter plan there is the argument that the combined wisdom of a greater number of qualified specialists could be drawn upon and of the former that the air of the pine woods is itself a healing agent. Matters of detail may be left for future discussion and determination. The question now is, would it not be wise for the state to establish such a sanatorium, place it not under political management but under scientific medical control, and begin the work of stamping out a disease which kills five times as many adults as any other?

## Book Notices.

THE PHYSICIAN'S VISITING LIST (Lindsay & Blakiston's) for 1901. Fiftieth year of its publication. Philadelphia: P. Blakiston's Son & Co. (Successors to Lindsay & Blakiston), 1012 Walnut street. Sold by all booksellers, price for 25 patients per day or week, pencil, pockets, etc., $1.00; 50 patients, $1.25; 50 patients, 2 volumes, 6 months each, $2.00; 75 names do. $2.00; 100 names do. $2.25.

This visiting list has been issued for fifty consecutive years, and is so well and so favorably known as to need no introduction. An interesting little circular illustrated with portraits of the pioneer publishers, Robert Lindsay and Pressley Blakiston, accompanies the list. The publishers naturally feel proud of the stability of the little book which has been seen and used by the most famous American scientists, made long journeys in the buggy and saddle bags of the country doctor, has been at the birth and alongside the death-bed of rich and poor, famous and infamous alike, and whose volumes hold the life records of numberless physicians. We consider it the ideal visiting list.

---

THE MEDICAL EXAMINATION FOR LIFE INSURANCE and Its Associated Clinical Methods. With Chapters on the Insurance of Substandard Lives and Accident Insurance. By Charles Lyman Greene, M. D., St. Paul, Clinical Professor of Medicine and Physical Diagnosis in the University of Minnesota. With 99 Illustrations. Philadelphia: P. Blakiston's Son & Co. Price $4.00 net.

The above work is one of great merit and will be found highly useful to all physicians in making their examinations for life insurance. If the instructions given are fully carried out it would seem almost impossible for any unfit subject by reason of disease or physical weakness, to be accepted for insurance by the companies.

In addition to the information given in general for the benefit of examiners, the historical record concerning the evolution of life insurance business, as well as of other kindred matters will be found interesting to the general reader. It may surprise the younger readers of this generation to see how little was known, or thought of sanitary laws of health until a comparatively recent period.

## THERAPEUTIC INDICATIONS OF ASPIRIN.

By Dr. J. Ruhemann, Berlin.

It may be regarded a fortunate idea that led to the introduction of aspirin, since this remedy affords all the advantages inherent to salicylic acid without its injurious effects upon the stomach, head, ear, and heart. While the after-effects of salicylic acid and its sodium salt are of such a character as to compel us to dispense with their use in many instances (gastric catarrh, cardiac affections, etc.) and to preclude prolonged administration in many others, the employment of aspirin is uniformly successful both in acute and protracted cases. The remedy may be taken for weeks at a time without any interference with the appetite or cardiac function. Chronic gastric catarrh or cardiac affections offer no contraindication to its employment. A total quantity of 70 to 80 grammes and even more (I do not doubt that a far larger amount can be administered without risk) was well tolerated, and exhibited distinctly the rheumatic power of salicylic acid. Now and then the appearance of slight transient tinnitus reminded one of the fact that salicylic acid had been given.

My experience, which up to this time extends to several dozens of cases of rheumatism of every form, acute and subacute muscular rheumatism, acute and subacute poly and mono-arthritis, etc., permits me to confirm the favorable reports of Wohlgemuth, Lengyel, Witthauer, Wolffburg, Schmeichler, Ketly and Weil on the action of aspirin. Perhaps an opportunity will present itself later of reporting my experiments in detail. I would only add what has not been previously mentioned that aspirin may be employed with advantage in rheumatic neuralgias, sciatica and the like, the therapeutic management of which is often fraught with great difficulties. — Therapie der Gegenwart, March, 1900.

## CONVALESCENT WHITE SWELLING ON THE KNEE.

At the meeting of the section on Orthopedic Surgery, New York Academy of Medicine, November 16, 1900, Dr. Judson presented a boy seven years of age slowly convalescing under mechanical treatment for white swelling of the left knee. A year ago the patient's general condition was most unfavorable and locally there were sinuses surrounding the knee, great swelling and the usual evidences of a disintegrating joint. His condition and the method of his treatment were described when he was presented to the Section on October 20, 1899, and the opinion was expressed that it was a case in which operative surgery should be practiced in order to save life. Continued reliance, however, had been placed on the reparative natural processes assisted by mechanical treatment. In spite of the most unfortunate and discouraging environment, improvement had been marked generally and locally. The tumor was very much reduced, and firm scars had taken the place of nearly all the sinuses. A year ago the child was emaciated and distressed, but, on examination, he was found to be well-nourished and comfortable. Treatment would be continued by a fixative brace worn day and night and an ischiatic crutch worn only in the day time. Prognosis was still in favor of a useful limb, of good length, with no flexion and no deformity except a slight and unimportant degree of subluxation.

Dr. Elliott said that some of the swelling might be gotten rid of by systematic compression and drainage and removal of the tight band above the knee.

Dr. Judson said that the tumor of white swelling of the knee disappeared with the other signs and symptoms which yielded in due time to natural repair and restoration assisted by treatment. What appeared to be a tight band was that part of the fixative apparatus which made pressure from before backward near the joint in opposition to the counter-pressure made by the ends of the brace from behind forward at the extreme upper part of the thigh and lower part of the leg. There was no constriction or interference with circulation or nutrition at any point, as no part of the brace was allowed to touch the posterior surface of the limb near the joint. The apparatus was a simple lever, and any other arrangement of it would destroy the leverage which was relied on to arrest motion and reduce the flexion.

Dr. Taylor said that this result reminded him, by contrast, of the many patients which he had seen with limbs disastrously shortened and deformed as the result of excision, an operation which interfered with the growing epiphyses, leading frequently to a shortening of 6 to 8 inches. He recalled an instance of this operation in which the result was complete dislocation of the tibia backwards and a flail joint.

Dr. Gibney said that the best surgical practice omitted excission of the knee in children. He saw too many patients coming for the correction of deformity and almost hopeless disability, the results of excision. To save life amputation was required, in certain cases, but never excision in a child. He advocated a country branch to a hospital, open the year around, where children could be on a farm and have simply nurses and a physician or two to look out for them and do very few operations.

Dr. Judson said that the admirable plan thus outlined was too purely expectant. He would add thorough and painstaking mechanical treatment which, no less than good food and wholesome surroundings reinforce the processes of recovery in growing children.

Dr. Myers said that general surgeons should agree with orthopaedic practitioners in interdicting excision of the knee in children He had kept a boy under strict observation for six years after his knee had recovered to prevent excision for deformity until he attained his growth. He returned from a vacation, however, to find that the patient had been sent to a general hospital where excision had been done at once with recurrence of extreme flexion with lateral deviation and the certainty of more shortening with further growth.

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## OSTEOPATHS BARRED.

Des Moines, Iowa, Dec. 19.—The Iowa state board of medical examiners has refused to issue certificates of graduation and permits to practice to any of the graduates of the Still College of Osteopathy of Des Moines.

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## SOME FOREBODINGS OF INCIPIENT INSANITY.

1. Irritability and tendency to take offence.
2 Moroseness and silence, or sometimes fault-finding with servants.
3. Suspicion and jealousy of best friends.
4. Impairment of memory, forgetting hours of meals.
5. Inattention to exercise and state of bowels.
6. Neglect of personal appearance.
7. Altered facial expression, notably in melancholia, with marked furrows.
8. Prominence and brilliancy of cornea in hysterical and puerperal mania

### Bodily Symptoms.

1. Harsh, dry skin as a rule, though sometimes perspiring.
2. Sometimes a peculiar odor.
3. Coated tongue with offensive breath.
4. Constipation and feeble circulation.
5. Headache and pallor of face.
6. Sexual appetite either in abeyance or abnormally strong.
7. Frequent suppression of menses in females.
8. Subjected deafness, or abnormal auditory sensations.
9. Altered conversational style, and talking to oneself.
10. Delusions and illusions later on.

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## THE YOUNGEST MANIAC.

A toddling youngster, four years old, but unable to talk, was carried on the arm of a burly guard through the heavy iron gates of the asylum for the insane at Napa, Cal., to dwell until death shall set him free, among the raving maniacs of his kind.

Montee Ledderhos, adjudged insane, over the signature and seal of the court, was the poor little sufferer. Though still of an unsteady gait and mute except for the one baby word "mama," his strong and sinewy body is ever on the alert to obey the disordered mandates of his unsound brain to "kill, kill," whenever he gets the chance.

The little maniac has the distinction of being the youngest person ever sent to an insane asylum, after being examined by a competent court of inquiry. A search of the records of the United States shows that up to this date no child younger than eight years has ever been committed to an asylum for the insane.

Baby Ledderhos has been an enigma to the physicians ever since he was four months old. Physician after physician passed upon his case as hopeless.

Then the mother remembered a fall the lad had received when he was but four months old. Through some carelessness the baby was thrown out of a hammock, and landed on his head. From that day his health began to wane, and he hovered between life and death with a fever. When he began to improve along with the light of health in his eye, there was another and an alien light, the gleam of insanity.

At eight months there was uppermost in his mind a passion for the brutal. He broke his toys and destroyed everything he could lay his hands on. Year by year this destructive element in his character grew. Without provocation he assaulted every living thing within his reach. His favorite weapon was a hat pin, and he struck at anything that came near him when he had the point of one clenched tightly in his chubby fist. On one occasion he nearly killed another child by striking it on the head with a pop bottle.

The physicians took an X-ray photograph of the child's skull. On the skull just at the base of the brain there was found a dark spot. It marked the place where the bone had thickened from the wound in infancy, and behind it traces of the blood clots and degenerated brain could be dimly traced. A vital point of the brain was involved, and to remove the pressure by an operation would be sure to cause death. The insane asylum was the only refuge open to him, and accordingly he was placed there before his growing strength could make him a menace to society.

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## INCOMPATIBILITIES OF HEROIN AND HEROIN HYDROCHLORIDE.

Heroin and heroin hydrochloride form an essential part of so many formulae for the relief of cough, dyspnea, and pains in the treatment of respiratory affections that it is important to determine in what combination they will prove most effective, and what are their incompatibilities. Owing to the insolubility of heroin in watery solutions it is necessary to add a few drops of some acid, acetic or hydrochloric, in order to effect its solution. This can be entirely obviated by using the hydrochloride, which is freely soluble. The only incompatibilities of heroin and the hydrochloride worthy of special mention are the alkalies, such as bicarbonate of sodium and carbonate of ammonium. On the other hand, salts of neutral reaction, such as iodide of potassium or chloride of ammonium may be used in the same mixture, and this also applies to acid salts, such as the hypophosphites or acid phosphates. The vegetable expectorants, as ipecac, senega, squill, and sanguinaria, are entirely compatible with heroin and its hydrochloride. Although many physicians employ heroin without admixture very desirable results have been reported from combinations of iodide of potassium, chloride of ammonium, and the vegetable expectorants, according to the indications present in particular cases. A word as to the dosage of heroin and heroin hydrochloride may be of interest here. The large doses at first recommended at the time of the introduction of heroin are no longer preferred by the majority of authors, the average dose

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ranging from $^1/_{24}$ to $^1/_{12}$ grain in adults, and $^1/_{120}$ to $^1/_{60}$ grain in children. It is advisable not to employ larger doses until the smaller ones have been given a trial. Furthermore, many physicians now resort to the hypodermatic use of heroin hydrochloride in cases in which it is desirable to obtain an immediate effect, and especially in the treatment of spasmodic conditions, such as asthma, care being taken in the preparation of solutions not to add the drug until the water has partially cooled.

## WHAT SHOULD BE THE RELATIONS OF ONE DOCTOR TO ANOTHER.

(Richmond Jour. of Prac.)

Dr. D. W. Stevenson in Indiana Med. Jour. says: Blackstone, the great lawyer, states that if two men were out on the wide ocean on a plank, and one of the men found that they could not both live on the plank, it would be perfectly legal and proper that the one man should slip the other fellow off into the deep sea. But our medical opponents live on dry land. The days of duels are past, and the twentieth century doctor finds it best to live and let live, and to follow the Golden Rule.

A young physician once entered practice in a country town of three hundred inhabitants, and found an older doctor, about double his age. The people told him that four or five doctors had previously been there and they had all quarreled with the present occupant. He wrote

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to me for advice, for he said many advised him not to call on the old doctor or have anything to do with him. I wrote to him to have everything to do with him, to go and shake hands. The physician did so, and urged him to partake of free use of his library and instruments. That relationship ripened into the most unselfish friendship. The old doctor gave freely of his ripened experience how to treat diseases peculiar to that district, how to get cash from some and where it was safe to extend credit to others. Where the patient progressed badly, or there was death, he stood always ready to explain and defend the young doctor.

Acts of neighborly kindness are frequently performed by physicians for one another, and go far, very far, toward neutralizing the ruffles, stings and collisions of interests which the very nature of our profession makes inevitable. Patients often, when they leave one doctor, feel impeled to misinform and prejudice the new. Let us always wait and avoid anything but courteous rivalry between physicians.

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## HEALTH HINTS.

(Gaillard's Med. Jour.)

Always wash your feet in water; molasses attracts flies.

Don't work your ears; it may cause action in the brain cells.

Don't spit on the floor; with a little practice you can hit the rug.

Cats carry diphtheria; don't contract diphtheria if you keep a cat.

Avoid all drafts; learn the step of the bank cashier and jump into a closet.

Eat fruit and vegetables in the summer. They are too expensive in the winter.

Never use face powder so it will show. Fool the people and you may marry rich.

Don't allow your necktie to mount above your collar; it creates insanity in people you meet.

Don't work in winter; it brings on pneumonia, and in the summer it debilitates by increasing the perspiration.

Always breathe through either your mouth or your nose; deafness may result from breathing through your ears.

## WORTHY AND SEASONABLE.

When the temperature of the body is above normal, conditions are especially favorable for germ development. It is a matter of every day observation that a simple laxative is often sufficient to relieve the most threatening situation and prevent the most serious complications. To reduce fever, quiet pain, and at the same time administer a gentle laxative and strong tonic is to accomplish a great deal with a single tablet. We refer to Laxative Antikamnia & Quinine Tablets (a tonic laxative, analgesic and anti-pyretic) each tablet containing:

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| Aloin | gr. 1-32 |
| Ext. Belladonna | gr. 1-32 |
| Podophyllin | gr. 1-32 |
| Quin. Bisulph | gr. 1¾ |
| Antikamnia | gr. 3 |

Among the many diseases and affections which call for such a combination, we might mention la grippe, influenza, coryza, coughs and colds, chills and fever, and malaria with its general discomfort and great debility.

We would especially call attention to the wide use of this tablet in chronic or semi-chronic diseases.

## THE HUMAN FIGURE.

The proportions of the human figure are six times the length of the feet. Whether the form is slender or plump, the rule holds good; any deviation from it is a departure from the highest beauty in proportion. The Greeks made all their statues according to this rule. The face from the highest point of the forehead, where the hair begins, to the chin

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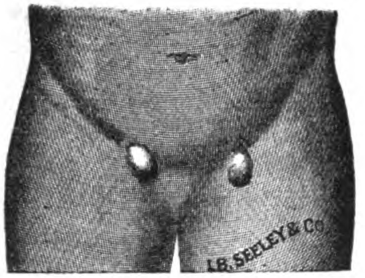

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is one-tenth of the whole stature. The hand from the wrist to the middle finger is the same. From the top of the chest to the highest point of the forehead is a seventh. If the face from the roots of the hair to the chin be divided into three equal parts the first determines the place where the eyebrows meet, and the second the place of the nostrils. The height from the feet to the top of the head is the distance from the extremity of the fingers when the arms are extended.—Ex.

## A GOOD THING TO REMEMBER

is that asepsis is always better than antisepsis, and on this principle Stearns' special antitoxin bases its claims to the physician's favor. It is put up in such a way that it can be injected directly from its own bulb, without the use of a special syringe; as everything in the antitoxin package is perfectly sterile the syringe made from the bulb is surgically clean and requires no further preparation before using.

## LONGEVITY.

George Humphrey examined nearly 1,000 persons as to the history of their lives, circumstances, habits, environment, etc. Of those persons seventy-four were centenarians. His conclusions in regard to longevity were: "1. That the primary factor in a long life consists in an inherited durability; the vital machinery is wound up to go for a given period, and but for accidents or in spite of them it will go till the time appointed. 2. That an important part of the primary inheritance is good digestive and nutritive power. 3. That temperance is necessary in use of the nutritive functions both in eating and drinking, and in regard to all kinds of food and drink. 4. That an energetic temperament and active habits conduce to longevity."

## MEDICINAL PROPERTIES OF ONIONS.

Onions are a kind of all-round good medicine. A whole onion eaten at bedtime will, by the next morning break the severest cold. Onions make a good plaster to remove inflammation and hoarseness. If an onion is mashed so as to secure all the juice in it, it will make a most remarkable smelling substance that will quiet the most nervous person. The strength of it inhaled for a few moments will dull the sense of smell and weaken the nerves, until sleep is produced from sheer exhaustion. It all comes from one property possessed by the onion, and that is a form of opium.—Winnipeg Lancet.

## REDUCIBLE HERNIA.

The patient who comes into our office suffering from hernia should not be put off with the advice to get a truss. It must be remembered that hernia in a majority of cases is a life-long affliction and the majority of trusses a life-long misery. It certainly is worth while to have that patient's rupture fitted properly, with a truss that is safe and comfortable. If left to his own course, he is apt to get any kind of a truss and wear it with more or less intelligence. Obviously it is our duty to get the proper truss for him and show him how to wear it. He must be given a chance to be cured. Probably the best all around and most satisfactory trusses for all conditions of hernia are Seeley's Hard Rubber Trusses. They are made in thirty different patterns by Chesterman & Streeter, of Philadelphia, who will send literature giving full particulars, life photographs, prices, etc., on application. This firm makes a specialty of sending trusses to physicians for their private patients. Each order has individual attention, so that the most possible good can accrue to the patient. The firm would be very pleased to answer all inquiries and give full particulars regarding any case of hernia.

## TESTING THE TASTE SENSE.

Prepare the following solutions:

No. 1.—Bitter. Quinine sulphate, a quarter of a grain to an ounce of distilled water (about 0.05 per cent).

No. 2.—Sweet. Saccharin, one-tenth of a grain to an ounce of distilled water (about 0.02 per cent.)

No. 3.—Sour. Phosphoric acid (pure).

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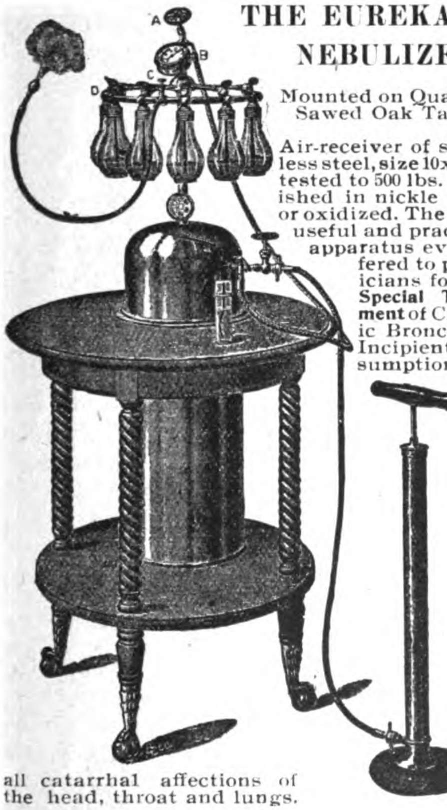

Forced **inhalations** promptly arrest the progress of diseases of the air passages, allay irritation in Bronchitis and control the cough, soothe the inflamed membranes, heal ulcerations, stimulate secretions and restore the physiologic functions—promoting a more perfect oxidation in the process of nutrition and assimilation. Operator has perfect control of the pressure, as air gauge indicates the amount used, which is very essential, and enables physicians to treat children, timid persons and invalids.

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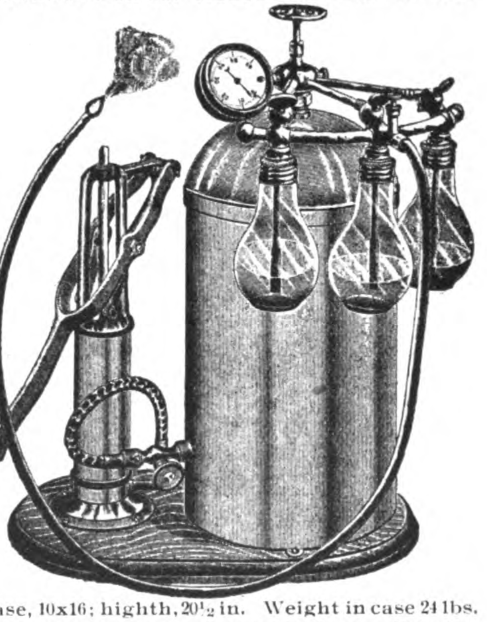

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three minims to an ounce of distilled water (about 0.66 per cent).

No. 4.—Salty. Sodium chloride, five grains to an ounce of distilled water (about one per cent.)

When a patient is to be examined use these solutions, placing a drop or two on the tongue of the patient with a glass rod, and recording his answers. Test separately each side of the tongue, the tip, middle and base, washing the mouth out after each time with pure water. These tests give valuable aid in the diagnosis of various palsies affecting the motor and sensory nerves of the tongue.—Southern Cal. Practitioner.

## HARRAH'S EFFERVESCING SALTS.

Physicians will be pleased to know that the Eureka Drug Store of this city have recently placed on the market a very palatable effervescing salt of phosphate of soda and lithia which is already finding great favor, as the compound is exquisitely palatable and effective in the treatment of all troubles for which it is indicated. The reader is respectfully requested to look up the advertisement on another page.

## FIGHT ON CONSUMPTION.

Vienna, Dec. 13.—The lower Austrian diet has appointed a committee of medical experts to examine tuberculosis and devise a means of protection against it. In lower Austria 25 per cent. of the deaths result from this disease, more than from any other. Even smallpox, prior to the general vaccination, caused only 12 per cent. of the death rate.

The commission will report on the isolation of the consumptive patients and on founding consumption sanatoria.

## EDICT AGAINST LONG SKIRTS.

The local board of health in one of the districts of Vienna has placed placards in all the public gardens and parks directing the women who visit these places to hold up their skirts if they trail upon the ground. The notice states that as these inclosures are devoted to the recreation of persons desirous of escaping from the dusty town, the authorities forbid dust to be swept there into heaps by trailing skirts.

## A FLY FIFTY YEARS OLD.

The corner stone of the old high school building at Akron, Ohio, which is being torn down to make room for a freight station, was removed to-day. The box it contained was delivered to a committee of the Akron lodge of Masons.

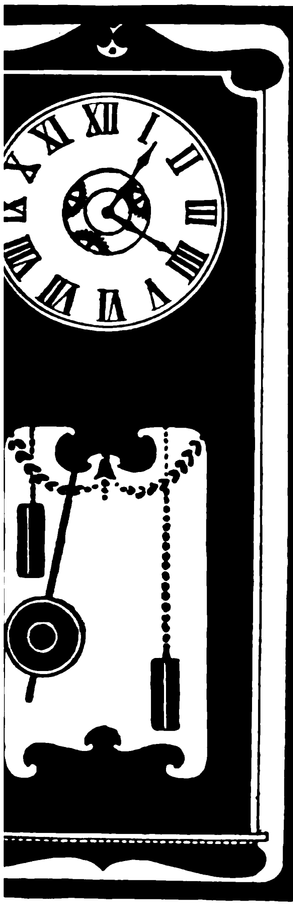
When opened a big blue fly buzzed a moment and flew out from among the papers in the box. The box had been buried in the corner stone for fifty years, and the fly could not have got into it since then.

Ships can now go to sea with frozen ammunition. A method of utilizing liquefied air on war ships has been discovered, which will render the explosion of a magazine, even when the ship is in action, almost impossible. The method is to so place the liquid air that it will freeze the ammunition to several hundred degrees below zero. In that condition it could not explode, even if a shell should burst in the magazine.

The highest inhabited hut in the Swiss Alps is at an altitude of 2,665 metres, on the Alpe de Lona, in Wallis. Grain grows up to the altitude of 2,075 metres. In the Himalayas and in Thibet there are habitations at altitudes up to almost 5,000 metres.

The great Spanish palace, the Escurial, is so large that it would take four days to go through all the rooms and apartments, the length of the way being reckoned at twenty-three Spanish leagues, which is about 120 English miles.

It is the opinion of a German oculist that the use of the ordinary slates by school children tends to produce short-sightedness. As a substitute he recommends pen and ink or an artificial white slate with black pencil. The latter have been introduced in some of the German schools.



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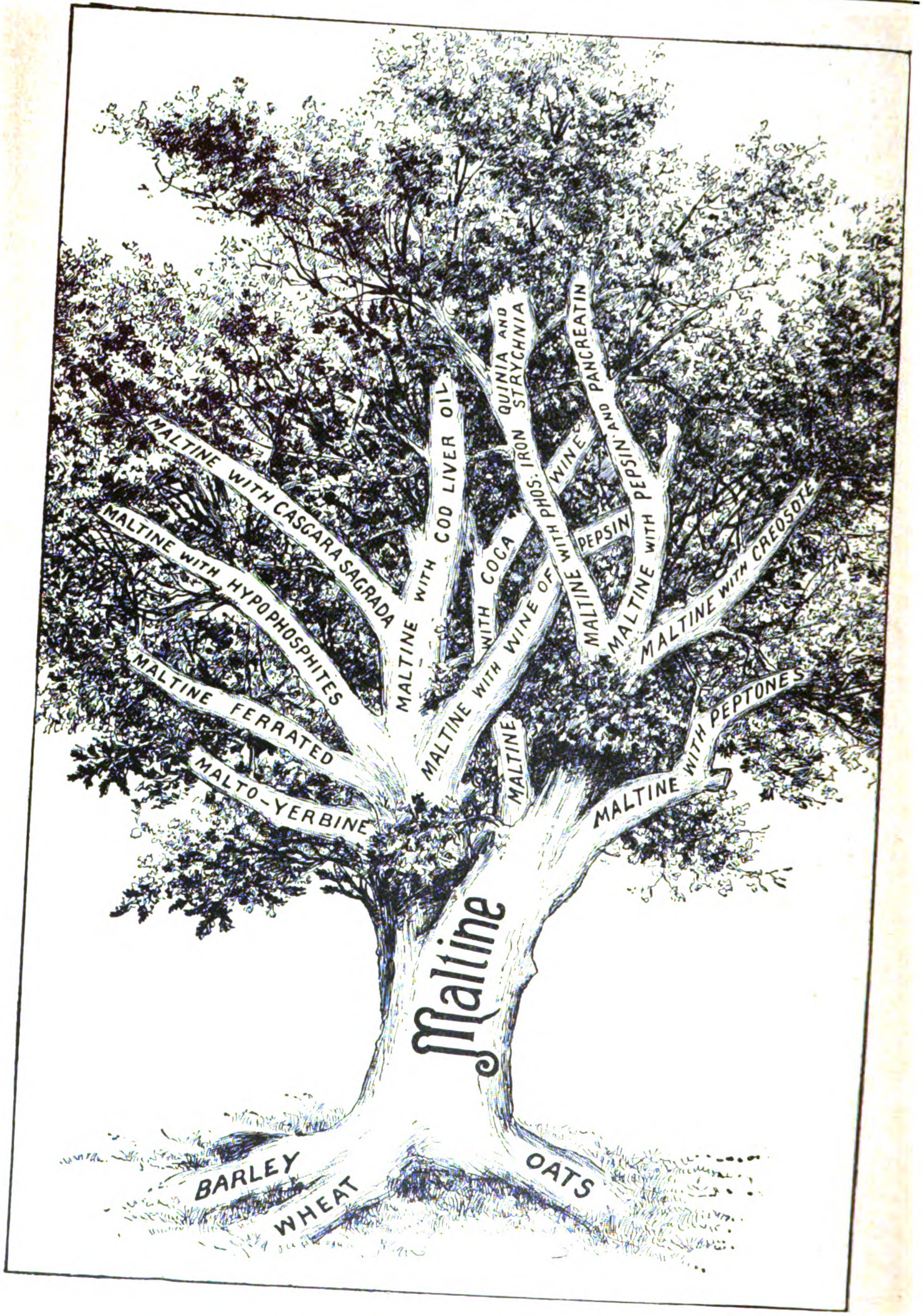
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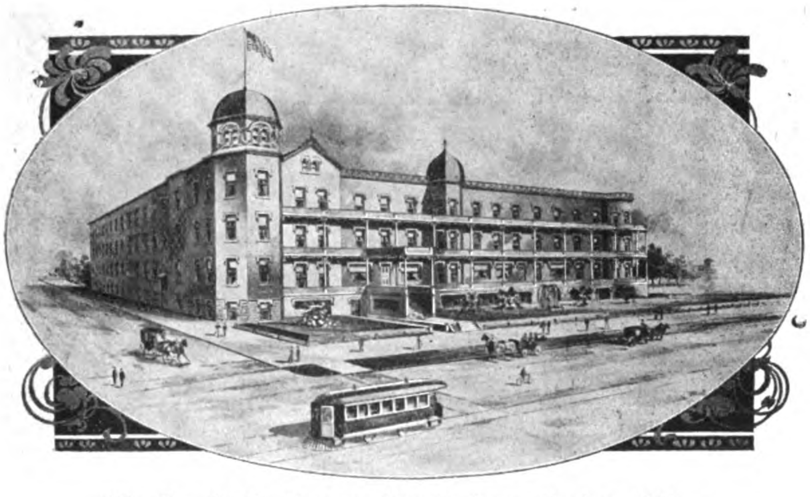

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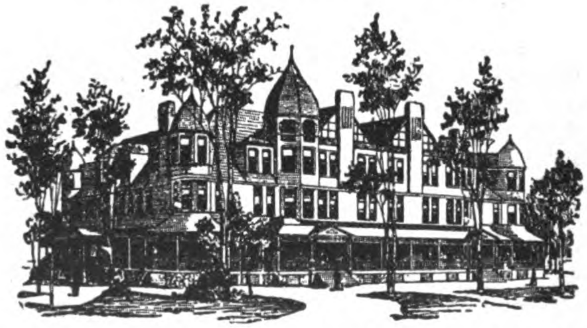

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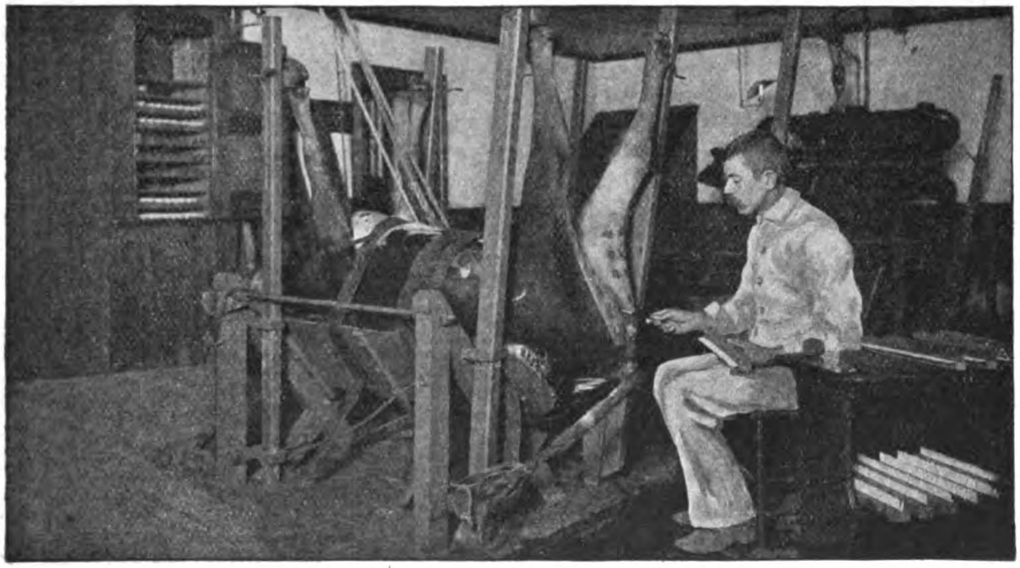

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# MEDICAL DIAL

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## Original Articles.

### *TUBERCULOSIS OF BONES AND JOINTS.

By Knut Hoegh, M. D., Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Hamline University (Minneapolis College of Physicians and Surgeons).

The tuberculous virus settles with sufficient frequency in the bones and joints, adding to its ordinary dangers those of the destruction of the organs of motion. These diseases are quite common but are certainly very often overlooked, a circumstance that often leads to irreparable mischief.

The majority of cases of this kind are from the beginning diagnosticated and treated as rheumatism, neuralgia, lumbago, etc., greatly to the detriment of the patient.

It has been found that the tubercle bacilli select the epyphyses of the long bones for their seat, in the short bones they are most often seen in the diaphyses, and in the cancellated substance. The disease is most common in children and young people, but no age is exempt.

Why the disease is so partial to the epiphyses of the long bones has been the subject of some speculation. The explanation given is that especially young bone at its period and seat of most rapid growth possesses at the epiphysis a peculiar arrangement of the bloodvessels; they form numerous loops, and from these loops sprout buds that at first are solid, afterwards become hollowed out and gradually anastomose with similiar buds from adjoining loops. The slowing of the bloodcurrent in these terminal vessels produces a precipitation of the corpuscles that float in the blood, and so it happens that tubercle bacilli naturally are thrown down in these vascular territories.

Owing to the toxins produced by the bacilli, the cells in the immediate neighborhood die off or are inhibited in their vital action and thus the bacilli grow on the dead or devitalized tissues and a focus is produced. In the vicinity of the dead center of the focus, phagocytosis and other reactions from the living cells take place.

This explanation is probably correct to a certain extent, but seems scarcely entirely satisfactory as we see that other bacteria elect the diaphyses, and almost entirely spare the epiphyses. Why do we so often find tuberculosis in the vertebrae, and so rarely the purely pyogenic forms of osteomyelitis? Why do we so often find tuberculous osteomyletis in the carpal and tarsal bones, and so rarely pyogenic osteomyelitis, except as the result of direct injury. Why do we see pyogenic osteomyelitis in the diaphyses of femur and tibia, and hardly ever tuberculosis in these localities? Why do we find the syphilitic virus show such partiality to bones lying immediately under the skin, as the clavicle, cranial bones and sternum? There must be some other cause than the mere slowness of circulation, for that would attract all the bacteria with impartiality. There must, in short, be a selective affinity between the various bacteria and the different localities.

There are no bones that so often are attacked by the tubercle bacilli as the vertebrae; next come probably the bones near the knee joint and the small bones

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*Paper read before the Hennepin County Medical Society at its regular January meeting, 1901.

of the wrist and anklejoint. All these localities have this fact in common that they are near joints, and that they are in almost constant motion during bodily activity.

The tuberculous process may invade bone by two different routes, by contiguity from neighboring tissues, or through the circulation (hematogenous infection). As an instance of the first, we have the tuberculous invasion of bone, from preceding synovitis; in the hematogenous infection the bacteria may come from any tuberculous focus anywhere in the body, from a tuberculous gland, from tuberculous peritonitis, from another infected bone, from tendon sheaths, or it may gain direct access to the blood through the skin, respiratory, or alimentary canal. In such cases the medulla is usually first affected: from it the Haversian canals; the bone trabeculae themeselves are then affected; finally the periosteum. When the process encroaches upon the bone from the outside by contiguity, the periosteum is the first part attacked.

In whatever way the bacteria may find their lodgment in the bone, the first step in the process is the formation of a focus with the usual symptoms and signs of tuberculous inflammation, in which cellular decay of bone substance takes place in the center; as a result we find rarefaction of the bone substance and caseation, or tyrosis of the devitalized tissue; outside of this zone we find one of condensation of bone substance (eburnation).

The process is entirely similar to the effects of the tuberculous poison in other tissues. Quite characteristic for tuberculous osteomyelitis, contrasted with the pyogenic osteomyelitis, is the slow and insidious beginning of the disease, that often is connected with very little pain and fever, and so little local disturbance that even the most careful examination fails to find convincing evidence of the seat or nature of the disease.

In the majority of cases tuberculosis of the joints originates from the bone (osteopathic origin). In a number of cases variously estimated by the authors it starts from the synovial membrane, but in either contingency the joint is apt to suffer.

With tuberculosis of bone near a joint we often find a disease in the joint that is not brought about by the direct bacillas invasion of the joint but still exists as its result. It consists in an increase of the synovial fluid, often large enough to be distinctly noticeable and often leading to considerable disability. A characteristic feature of this synovitis is its lack of painful symptoms and its tendency to disappear or at least to get much better for a time, only to recur again and again. Inspection of such joints reveals a slight hyperemia of the synovial membrane, a considerable effusion of a nearly clear fluid, which both microscopically and under bacteriological tests shows itself devoid of tubercle bacilli.

More common than this form of indirect tubercular disorder of the joints is the direct propagation of the process through a sinus. In such cases we see the synovial membrane at first only intensely red; the margin bordering upon the cartilage much swollen and gradually encroaching upon the cartilage; new vessels make their appearance and we have an analogous condition to that which we see upon cornea, when a preceeding inflammation of the conjunctiva (chlorosis) leads to formation of new vessels in the normally bloodless cornea (pannus).

We recognize four different forms of tuberculous joint disease; the first and most common being that of white swelling, which consists of a tuberculous inflammation of the capsule, and an infiltration of tuberculous matter in the subcellular tissue around the joint, thereby giving the joint a peculiar, stuffed or wadded appearance, whereby the delicately chisled outlines around the joint, with its bony prominences and depressions from the fixation of the fascia to the underlying bone are lost, and the whole joint assumes the appearance of a more or less spindle shaped mass. The second form is that of a tuberculous invasion of the synovia alone; this membrane is found studded with numerous tubercles of all sizes, from the miliary to the size of peas, hazelnuts or even larger. And yet the surrounding tissue may, at least for a time, remain intact. It is in these cases that we are most apt to find the well-known rice-formed bodies, mostly if not exclusively in joints and structures in which considerable motion takes place (kneejoint and tendon sheath).

In this form we find a more or less considerable hydrops or dropsy; its persistency and tendency to recurrence of dropsy of a joint should always lead to suspicion of tuberculosis, especially in individuals who suffer from other tuberculous lesions. It is of course unnecessary to remark that not every chronic and relapsing dropsy of a joint is a sign of tuberculosis but a majority probably are.

The third form is rare and only found in broken down constitutions; it consists in a real cold abscess of the joint, very much similar to the psoas abscess, and offering of course the very poorest prognosis. It appears quite suddenly and has features resembling those of ordinary pyemic joint abscesses. The fourth form is rarest of all, and nearly exclusivly found in the shoulder joint. It represents the mildest form of tuberculous joint infection, where each tuberculous focus is immediately surrounded by a limiting wall of proliferating connective tissue, choking off, so to speak, the tuberculous process, and nuiting the tuberculous ranges, but by the subsequent contraction of the connective tissue leading to shrinkage of the capsule and a useless joint in hopeless ankylosis.

As far as the prognosis of these various forms is concerned, it must be remembered that it is almost absolutely dependent upon the presence or absence of pus. As long as there is no articular or periarticular suppuration the prognosis is reasonably and comparatively good :as soon as a mixed (deuteropathic) infection with pus bacteria takes place, nothing but operative measures can save life or limb.

The pus bacteria may come from the outside, through surgical interference, through abrasion of the skin, through infection from a small furuncle, from pressure leading to necrosis of the overlying parts—instances of exogenous infection; on the other hand they may come through the circulation, having gained access to the blood through the fauces, lungs, alimentary canal or the skin—the so-called hematogenous infection. While the last ones may be the more dangerous, because the source is often unknown, and often cannot be reached when it is known or suspected, any form of suppuration in or near a joint, and especially a tuberculous one, is of the very gravest import and puts a so entirely different clinical aspect upon the case that it is clinically correct to divide all tuberculous arthropaties into the two simple classes of suppurating and non-suppurating.

After these brief considerations of tuberculosis of bones and joints in their generality, it may be profitable to direct our attention to some special forms, particularly those most apt to be overlooked and those that have the greatest clinical importance.

Authorities agree that tuberculosis of the vertebrae is the most common of tuberculous bone infections. I believe the disease is much more prevalent than supposed. I see often, persons who complain of weak back, who have gone from one physician to another and received most conflicting diagnoses, and who suffer from tuberculous spondylitis. The symptoms are a more or less persistent bachache; the seat of the pain in these obscure and slightly marked cases is usually the lumbar or lower dorsal region; but sometimes middle or upper dorsal. There is no tenderness on pressure, often no limitation of the mobility, often no change in the patients gait and the manner in which he holds himself. In short the usual signs of spondylitis are absent.

The question might well be asked: Upon what circumstances can the diagnosis be based?

Upon exclusion of all other causes of backache and upon the fact that we observe all possible transitions in severity from the fulminating cases that come on suddenly and with great pain to the very mildest cases, when the patient is able to do bodily work.

Backache of a tuberculous nature is usually located in a rather limited region, it is sometimes more on one side—there are frequently radiating pains into one or other leg, so that the patient may come to get treatment for sciatica. Sometimes there may be a slight muscular atrophy;

quite often the patient's attitude is characteristic, but so slightly marked that it will be unobserved, unless especially looked for. A diagnosis of such cases not often given but very often correct, is that of muscular exhaustion of the various muscles of the back, as found in exhaustive diseases and in general poor nutrition. This pain is, however, seated in muscular masses of the lumbar region; is never severe or paroxysmal. It is apt to be worse in the evening and almost or entirely well in the morning. The osteopathic pain on the other hand, may be in any part of the back; careful scrutiny will in intelligent patients lead to the conclusion that it has not its seat in the muscular masses, it is paroxysmal, often coming on suddenly after lifting or straining, often coming on in the night and waking the patient from his sleep. This pain is also worse in the evening, but most often the patient has gone to bed: it is better in the morning, but the patient is usually stiff and limbers up gradually in the course of the day. By giving due weight to these diagnostic features I believe that we should always be able to distinguish between spondylitis and muscular pain. Another condition which may give rise to uncertainty is that of sprain. In violent efforts, or as the result of traumatism, ruptures of muscle fibres and ligamentous strands frequently take place, often accompanied by an avulsion of a small bony fragment. The pain is usually quite severe; but the subsequent history is different in the two sets of cases. A simple sprain heals readily and is cured when once healed; a tuberculosis focus remains always, a place of weakened resistance and the morbid symptoms recur again and again.

In considering these diagnostic points it has been presumed that none of the usual obvious signs of tuberculous spondylitis are present. When there is deformity or limitation of motion the dianosis is so evident tha we need not spend any time on its discussion. When they are absent it is no easy matter to reach a diagnosis in any given case, but that there are a number of cases of Pott's disease with very slight objective symptoms seems to follow from the fact that cases are found in all degrees of severity; some of these in their later course are followed by cold abscesses, thus clinching the proof of their tuberculous nature.

It is however not only cases of tuberculous spondylitis that are apt to be overlooked and misunderstood. Tuberculous inflammation of the ilio-sacral joint is rarely diagnosticated, but is not so rare in reality. Several persons who have been treated without benefit for sciatica have been found to suffer from this disease, diagnosticated by the local tenderness, but the pain elicited, when the anterior iliac spinous processes have been separated or approximated by suitable manipulation prying upon the sacro-iliac synchondrosis. I have found rest in bed with extension benefitting those cases, and consider this a pretty good proof of the nature of the alleged sciatica.

Less frequent than spondylitis is tuberculosis of hip, knee and elbow. There is nothing in the character of these cases that seems to me to call for special mention, except that they so often go about practically untreated under the diagnosis of rheumatism until the disease has wrought great ravages in the joints. The ankle joint deserves to be mentioned because of the gloominess of the prognosis. The prognosis of tuberculosis of the wrist joint is not so bad as that of the ankle joint as to usefulness of the limb. I performed, 25 years ago, an excision of the wrist according to Lister, and my patient has been able to earn his living as a domestic servant to this day. Not all my cases have been so successful: some of them have succumbed to general tuberculosis shortly after the operation. This seems in fact more common in wrist tuberculosis than in other joints.

In the elbow joint the disease seems of osseous origin more frequently than in other joints; an early operation based upon early diagnosis may result in complete cure if the bony focus is eradicated before the joint is involved. For after that has taken place we do well if we obtain a stiff joint in good position, provided it is strong and painless.

In the shoulder we occasionally meet that otherwise unusual form that goes by the name of caries sicca.

In the smaller joints of the phalanges and metatarsal and metacarpal bones we are apt to find a peculiar form of bone tuberculosis, spinae ventosa, probably connected with the fact that the virus here is apt to settle in the diaphyses. A rarifying osteitis takes place accompanied by proliferation of the periphery of the bone which thus assumes a blown up, bulging appearance, very different from the ordinary appearance of tuberculous bone. The tuberculous nature of this disease was proved by Vollemann by microscopical demonstration of it. Its prognosis is upon the whole, good.

This cannot be said of the ankle joint, which in the adult nearly always leads to amputation. In children I have obtained occasional success by early excision of astragalus and careful dissection of the synovia. What the final fate of these children is I do not know. They presumably die from the ordinary infectious disease, or become tuberculous in later life.

In the kneejoint I find that the disease is quite amenable to mechanical treatment, which, however, must be persistently carried on; that there is a comparatively slight tendency to general tuberculosis; but that this is very apt to come on after violent efforts to break up adhesions in stiff but otherwise apparently healthy joints that have but the seat of an acute tuberculous process. I cannot warn against this measure with sufficient emphasis.

Tuberculosis of the hip offers probably the best instance of improved prognosis under the better treatment that prevails now compared with the management of such cases when I began the study of medicine some 35 years ago. Nearly all cases seen by me during my hospital service in the sixties died; but it must be remembered that the hospital cases were supplied by the indigent classes where poverty and poor hygiene had undermined the constitution. With the modern treatment that in this country was mainly advocated by Lewis A. Sayre much better results were obtained, and I can look back upon quite a number of cases that have been recovered without operative interference, certainly often with more or less ankylosis. I can also recall cases that have recovered completely. The earlier the treatment was begun, and the more persistent it had been carried out, the better have the results been. As in all other tuberculous joint cases, the presence of pus, is an absolute indication for operative treatment . In children excicion offers fairly good prognosis, at least for the time being; but in adults the chances are much less favorable, so much so, that several authorities advise to abstain from surgical interference if the patient is over 25 years. But I do not think we are justified in repressing excision even in these cases, for there is no other treatment that offers as good a chance of amelioration or cure. By removing suppurating heads of femur, and by giving good drainage after scraping out foci and sinus we at least limit suppuration and suffering, thus making the patients condition more endurable, and preventing the amyloid degeneration of internal viscera.

Looking over the subject of joint and bone tuberculosis it strikes me that the most important clinical factor is the necessity of early treatment upon the lines of immobilization, removal of the weight of the body upon the diseased joint, and proper nutrition. But this early treatment will not become universal, before the great body of practitioners become thoroughly familiar with the first signs of the disease. Think of all the cases that we see coming to us with their joints painted with iodine, or various other irritants, or treated in other equally futile and some harmful ways, and it will be apparent that this society ought to do some missionary work in the profession, to enable the general practitioner to recognize the disease early.

Recognizing that a large number of tuberculous cases start from sprains, we must also inculcate the necessity of a better treatment than the prevailing one for these common accidents. Instead of rest and external application of heat or cold or irritants we must persistently preach massage, and early passive and active movement. By these means we shall not always be able to prevent a tuberculous complication, but we do at least what we can to further a rapid absorption of the exudates in which the tubercle bacilli find their best culture media.

# THE TREATMENT OF BRONCHO-PNEUMONIA.

By William Fitch Cheney, M.D., of San Francisco, Cal.

(Medical Times.)

Regarding the treatment of broncho-pneumonia, Osler says: "The frequency and the seriousness of broncho-pneumonia renders it a disease which taxes to the utmost the resources of the practitioner. There is no acute pulmonary affection over which he at times so greatly despairs. On the other hand, there is not one in which he will be more gratified in saving cases which have seemed past all succor."

By broncho-pneumonia I mean that disease which the older books called capillary bronchitis, and which more recent authorities have named catarrhal pneumonia and lobular pneumonia. It is a sneaking, cowardly disease, for it attacks by preference the weak and the debilitated—the infant, whose life is just beginning, and the aged, whose life is drawing to its close. It chooses, too, the infant that is already under-average, suffering from malnutrition, chronic diarrhea, rickets, or some of the acute infections, like measles, whooping cough, or diphtheria; or the old person already afflicted with some chronic process exhausting his vitality, like interstitial nephritis, diabetes, or carcinoma. At whatever time in life it comes, lowered resisting power prepares its way and constitutes its most formidable ally. This point, at the onset, challenges both our attention and our sympathy.

Broncho-pneumonia is a disease due to infection, but not by any special germ. The micro-organisms at work are different in different cases, and several different forms are commonly present in the same case. In other words, mixed infection is the rule in broncho-pneumonia. Furthermore, the infection attacks the bronchial mucous membrane primarily, and extends to the air sacs only secondarily. The disease is thus a capillary bronchitis by its origin, and a pneumonia only by its development and its effects. Again, while the exudate formed on the bronchial mucous membrane does not contain enough fibrin to make it coagulable, as in lobar pneumonia, it yet contains enough to make it exeremely sticky so that it tends to block the finer tubes. The consequence of this blocking is the collapse of air-sacs, because they can no longer be inflated; and this collapse of pulmonary tissue is frequently progressive and widespread. The important characteristics of broncho-pneumonia, that make it so formidable an enemy, are, therefore, these: (1) The regularity with which depression of vitality precedes and accompanies the disease: (2) the presence of an abundance of micro-organisms on the bronchial mucous membrane whose toxins are constantly being absorbed into the blood: (3) the formation in the tubes of a viscid secretion that causes extensive obstruction to the entrance of air.

The dangers to life that the disease presents depend directly on the conditions just enumerated. These dangers are, first, mechanical, from obstruction; and, second, toxic, from infection. Probably the greatest menace to life is that of diminished air space from occluded tubes and collapsed sacs in the lungs, leading to deficient oxidation of the blood and threatening death from asphyxiation. Another menace offered by this mechanical obsruction in the lungs is gradual dilation of the right ventricle, that goes on little by little as the obstacle to the pulmonary circulation becomes greater and greater. Still a third menace to life is that of toxemia. It is difficult to calculate just how far the toxins in the blood are responsible for the prostration that forms so prominent a feature of the disease. We cannot doubt, however, that they play an important part in the production of exhaustion. They act especially as depressants to the respiratory and cardiac centers, they irritate the kidney epithelium which attempts to eliminate them, and they cause debilitating sweats, by which the skin likewise attempts to throw them out of the circulation.

Whether we look at the disease from the standpoint of pulmonary obstruction or from that of toxemia, our first duty in treating broncho-pneumonia is stimulation of the patient. This must be the prime object constantly kept in view.

The disease makes it onset because of the patient's weakness, it thrives on his depression, and it spreads and grows in direct proportion to his exhaustion. The more stimulation we can furnish the patient, therefore, the more opposition we offer to the progress of the disease and the more we enable him to throw it off. Every therapeutic measure employed in this affection must first be weighed most carefully with regard to its effects on the patient's strength; everything that depresses will injure; everything that stimulates will benefit; and just here, it seems to me, lies the main secret of success in fighting broncho-pneumonia.

With "stimulation" our watchword, our first aim must be to see that nutritious food is given in sufficient quantity; for no drug is equal to food as a sustainer of life. The food must be nutritious—that is, capable of assimilation, and it must be given in definite amounts, at regular intervals, so that the digestive organs will not be overtaxed. Milk is the best diet, peptonized if its digestion causes any inconvenience. I commonly order six ounces for an adult every two hours, so that at least two quarts will be taken in the twenty-four hours. There is no objection to animal broths, if the patient tires of milk; but milk gives a maximum of nutrition with a minimum of bulk, and always deserves first choice. Next to careful feeding one should think of some form of alcoholic stimulant. In other diseases we wait for symptoms of depression to arise before we begin giving alcohol as a stimulant; but in broncho-pneumonia depression is the precedent condition that makes the disease possible. I believe, therefore, that whiskey should be given from the outset, and the only question at first is as to the amount advisable. I usually begin by ordering three ounces in twenty-four hours—one-half ounce every four hours, increasing this amount as the condition indicates, and judging from time to time about the necessity for more by the pulse, the temperature and the degree of prostration.

Chief among stimulant drugs comes strychnin sulphate, which in broncho-pneumonia meets several indications. First, it acts as a stimulant to the respiratory center, increasing the force and depth of inspirations, thus keeping the small tubes open and preventing collapse of air-sacs. Second, it acts as a stimulant to the reflex activity of the cord, exaggerates the impression sent to the cord by the secretion in the tubes, makes the cough in turn more forcible and efficient, and so causes elimination or at least prevents accumulation of the viscid exudate. Third, it acts as a stimulant to the heart, increasing the force of the contractions of the right ventricle, and so helping it to overcome the obstacle in the way of its work. Strychnin, like alcohol, should be given from the outset in a case of broncho-pneumonia. The dose at first should be moderate, 1-30 grain every eight hours, gradually increased, if indicated, to once in six or once in four hours. In desperate cases the action of the drug is more certainly obtained by hypodermic injection, and the dose often has to be pushed to as high as 1-24 or even 1-20 grain every four hours. The only other drug indicated for routine administration in broncho-pneumonia is the carbonate of ammonium, but as a stimulant, not as an expectorant. It is undoubtedly a powerful stimulant to both respiration and circulation, though more fleeting and transitory in its effect than strychnin. Its action as an expectorant is entirely seconary and accidental, due to its elimination by the bronchial mucous membrane, and its promotion of secretion by its presence there. The dose of carbonate of ammonium, commonly advisable, is five grains every four hours, and it can be advantageously given in a mixture of syrup of tolu, mucilage of acacia, and water.

These are the therapeutic measures to be thought of first in the treatment of broncho-pneumonia. But no plans can be made for its care that are not subject to modification from day to day or even from hour to hour. Every case should be watched with the same systematic attention to detail that is given to typhoid fever. It is very desirable to have, if possible, a trained observer at hand in the person of a professional nurse. The temperature must be taken at least three times a day, or, better yet, every four hours. The number of respirations must likewise be frequently noted. The pulse must be watched most carefully as regards both its rate and its character. The color of the face, of the ears, of the lips and of the nails must be continually observed, for the warning thus given of interference with proper oxidation of the blood. The amount of nourishment taken in each twenty-four hours must be accurately recorded; likewise the amount of urine voided and the numbef of hours of sleep obtained. It is only by keeping the case thus well in hand that one can tell whether to modify a plan of treatment once adopted or to continue with what is being done.

Some symptoms that at times demand special treatment must now be mentioned. First on the list comes cough. This feature of broncho-pneumonia is is a necessity of the case, and is not to be lightly interfered with. By means of cough the bronchial secretion is kept from accumulating or is removed; and to continually repress it or stop it is bad practice; apt to be followed by higher temperature, increased dyspnea and cyanosis. While opium has no place in the routine treatment of broncho-pneumonia, and is rather ta be avoided as a general rule, yet now and then cough becomes so constant as to interfere with rest, and more depression comes from allowing it to continue, than from the administration of an opiate. To check cough, the least harmful opiate is Dover's powder. Five grains or even ten grains at a dose should be given, but not repeated until again demanded. Often such a dose once in eight hours or, at most, once in six hours, is required to preserve the proper balance between cough and repose; but the dose should not be repeated at all unless the necessity for rest demands it. I choose Dover's powder first as most desirable for the control of cough, but sometimes where it fails to quiet, one-half grain of codein will act like a charm. Third on the list, and least desirable among opiates, in broncho-pneumonia, comes one quarter grain of morphin hypodermically; but nevertheless it sometimes has to be resorted to at last, in order to secure rest.

Pain is never as prominent a symptom of broncho-pneumonia as of lobar pneumonia. More often the complaint is of a sense of tightness and soreness rather than of acute pain. This sensation does not usually demand opium for its relief, but can be overcome by hot applications to the chest. And this leads me to speak of a therapeutic measure not so far mentioned, the flaxseed poultice. I did not include it is the routine treatment, because I do not believe in adults it is always indicated; but these are certain conditions that make its use advisable, and most prminent among these is the discomfort in the chest. Nothing gives so much relief to the pain or soreness of broncho-pneumonia as a hot flaxseed poultice, or even a poultice-jacket covered with oiled silk. I am aware that the flaxseed poultice is no longer the fashion, and has been condemned by numerous high authorities; but I believe it still has its usefulness and often does great good, especially for the relief of the symptom now under discussion.

The fever of broncho-pneumonia rarely becomes high enough to constitute a source of danger or demand special antipyretic treatment. Certainly depressing drugs like phenacetin, antipyrin or acetanilid are distinctly contraindicated. High temperature usually means a wide area of infection and extensive absorption of toxins, and therefore calls for additional stimulants rather than for depressing drugs. Fever demands special treatment in broncho-pneumonia only when it causes unusual restlessness, irritability and disturbed sleep; and here a soothing effect can be obtained by sponging the extremities or the entire body with equal parts of cold water and alcohol.

Insomnia is a symptom that at times demands special attention. In a disease with protracted course, like broncho-pneumonia, where success depends so largely on maintaining the patient's vitality, we cannot afford to ignore so important a cause of depression as lack of sleep. If it is the cough that interferes with rest, Dover's powder or codein or morphin will be required to give repose, but more often it is simply the restlessness that comes from anxiety or from the irksomeness of the day's routine. In such case, trional answers best as a hypnotic. Combined with codem, its power seems to be enhanced and its effect prolonged—the right proportion being, as a rule, one-quarter grain of codein with fifteen grains of trional, given in the early evening. Another device that answers well in many cases is a rectal suppository containing ten grains of asafetida. And still a third remedy of long-proven usefulness, if the others fail, is sodium bromid in dose of thirty to forty grains. I prefer to give this also by the rectum, dissolved in a little starch water, in order to spare the stomach.

Scanty secretion from the bronchial mucous membrane is a symptom that now and then calls for a modification of the original plan of treatment. The cough is excessive and troublesome, causes a great deal of soreness in the chest, but is accompanied by little or no expectoration to justify the paroxysms. Here again the hot flaxseed poultice or jacket is distinctly indicated for its relaxing effect. It is well also to substitute now for the carbonate of ammonium, the chlorid of ammonium, which is not so distinctly stimulating, but has more power to promote secretion from the bronchial mucous membrane. This action of the chlorid ammonium is increased by the addition of a small amount of the iodid of potassium to each dose. For instance, I prescribe 7½ grains of the ammonium chlorid and 2½ grains of the potassium iodid in a tablespoonful of a mixture of syrup of licorice, mucilage of acacia and water, every four hours, substituting this mixture for the carbonate of ammonium mixture originally planned. Finally, Dover's powder finds another indication for its use when secretion is scanty, not merely for the relief it gives to cough, but for the relaxing effect on the bronchial mucous membrane and the promotion of secretion that the ipecac in the powder affords.

Excessive secretion, on the other hand, occasionally constitutes a very serious menace to life. The amount of sticky, ropy mucus poured out into the tubes becomes so profuse that it cannot be removed rapidly enough to leave proper air space. In such a state of affairs the indications for treatment are two: First, to check secretion, and, second, to meanwhile increase the power of expulsion and to keep the heart and respiration going, by increased stimulation. To check excessive secretion no drug is more reliable than atropin sulphate, given hypodermically. The dose should be 1-150 to 1-100 grain, repeated once in six hours or even once in four, according to the effect produced. Furthermore, any ammonium salt that is being given must be stopped temporarily, for even the carbonate increases the bronchial secretion, though not to the same extent as the chlorid. The stimulants already advised must now be pushed. The quantity of whiskey must be increased to six ounces or to twelve ounces in twenty-four hours. Strychnin is especially to be depended upon in this emergency, for no other drug gives the patient so much power to get rid of the secretion, and no other affords equal support to the circulation and respiration. Atropin, like strychnin, is a powerful stimulant to respiration, and thus becomes a doubly useful remedy here. The strychnin and atropin should be combined hypodermically, and the dose of the former must be increased to 1-25 or to 1-20 grain every six hours, or every four hours, according to the urgency of the symptoms. Finally, in a crisis, when the lungs seem about glled up with material that the cough is powerless to remove, an emetic will sometimes succeed in relieving the accumulation, and so in saving the patient from apparently inevitable asphyxiation. Some form of ipecac is advisable for this purpose, because it is the least depressing of the emetics; of the wine an ounce should be given, or of the powder a small teaspoonful.

Cyanosis is a symptom that always calls for prompt and vigorous management. It means deficient oxidation of the blood and the accumulation in it of carbonic acid gas. Whether this be due to lack of air space in the lungs from obstruction or to inefficient pulmonary circulation from dilated right ventricle, it demands stimulation for its relief. Here, again, whiskey should be freely administered. Strychnin and atropin in full doses must be given hypodermically; and digitalin, in dose of 1-50 grain, should be added to each injection if there is evidence of cardiac weakness. Another drug of great usefulness here, as a stimulant to both heart and respiration, is caffein, in dose of five grains of the citrate of caffein every six hours. I wish, also, to speak a good word for oxygen, which has unfortunately fallen somewhat into disrepute, because, so often, its exhibition is simply the last resort. If used early, when cyanosis first appears, it gives great relief to respiration and restores normal color to the skin more promptly than any other remedy. I order oxygen for a case as soon as the slightest evidence of cyanosis is seen, and have it adminstered continually until normal color is restored. It is employed again as often as blueness of the surface is observed, and in this way has repeatedly proved a valuable aid in the fight.

Diminution of urine is a symptom that in old people especially should be looked upon as of grave import. If the amount of urine voided during each twenty-four hours is regularly recorded, any decided decrease from the normal at once becomes apparent. Too often it means that an old granular kidney is proving inadequate to the extra work thrown upon it by the acute infection. Particularlv if urinary examination shows the presence of albumin and granular casts, the probability is strong that a uremic condition will develop to complicate and too often to terminate, the case. The best drug to avert this disaster and to whip up the amount of real secretion is nitro-glycerin. It acts best when given hypodermically in dose of 1-100 grain every four hours. Infusion of the digitalis should at the same time be given by mouth, and hot poultices should be applied across the loins.

The treatment of broncho-pneumonia in infants deserves especial consideration. It is here that the disease finds its richest harvest, for the mortality, according to Holt, runs as high as 30 per cent. Assume the case of an infant, six months old, bottle-fed, under-weight, badly nourished and anemic—such a one as commonly falls a prey to broncho-pneumonia—what can be done for such a frail bit of humanity? The first necessity is that a nutritious food be given in definite amount at regular intervals. Whatever preparation the bady has been taking previous to this illness had better be continued, unless it is manifestly improper and unfit. If a new food must be selected, it had better be one of the milk and cream formula, with low proteid percentage and peptonized. Careful feeding of an infant with broncho-pneumonia is, to my mind, the prime essential, and disturbance of digestion is the complication most to be feared. Beside the regular food, nothing else should be allowed except water that has ben boiled given either plain or with white of egg stirred in it. It is a mistake to add stimulants or medicines to the infant's food; they should always be given separately. Excessive handling of a sick infant is depressing to it and should be avoided, but frequent change of position is necessary. The baby should be kept in a well-ventilated room, not too warm. Abundance of oxygen is an essential, and heat is always debilitating. Nothing is more exasperating than to find an infant with broncho-pneumonia shut up in a small room with all doors and windows closed for fear of draught, the thermometer 80 degrees or above and three or four women hovering about the child, exhausting its oxygen and breathing their carbonic acid in its face.

I believe in the routine use of the poultice-jacket for infants with broncho-pneumonia. My main reason is that they do better with it than without it, regardless of all theories to the contrary. I advise that with the flaxseed meal a little mustard be mixed in making the poultice, usually in the now classical proportion of 16 to 1. I advise further that twice in the day, when the poultice is changed, the chest shall be thoroughly rubbed with warm camphorated oil. Stimulants are advisable as a routine measure, even from the outset. Brandy seems to agree with the infant's stomach better than whiskey does, and is usually to be preferred. I order it at first in doses of twenty drops every four hours for the infant six months old—two drachms, therefore, in the twenty-four hours. This is often increased later to a half-ounce or an ounce in twenty-four hours. It should always be given well diluted, the twenty drops in at least two teaspoonfuls of water. Among drugs I have but two for routine use, and both are stimulants—chlorid of ammonium and strychnin. I select the chlorid in preference to the carbonate simply because experience has proven that it is less apt to disturb the stomach of the infant. At six months the proper dose is one-half grain, given every four hours, in syrup of tolu, mucilage of acacia and water. The strychnin I give in plain water solution; at six months the proper dose is 1-400 grain given every six or every four hours. This dose is easily obtained by dissolving a 1-25 grain hypodermic tablet in two ounces of distilled water and giving one teaspoonful of the solution.

The infant must be watched even more closely than the adult for evidence of change in its condition. It must be remembered that with even an average case of broncho-pneumonia at six months the respirations will be about 80 to the minute and the pulse 140 to 160. The temperature is a valuable index to the progress of the disease, and must be taken frequently; always by rectum, for in infants no other method is reliable. Increased rapidity of pulse and respiration call for increased amount of brandy and strychnin. Atropin can often be added with advantage as a respiratory stimulant; at six months the dose is 1-1200 grain, which can be easily obtained by adding a 1-150 grain hypodermic tablet to an ounce of distilled water, and giving a teaspoonful of the solution. Fever is rarely high enough to demand antipyretic treatment, and the depressing coal-tar drugs should be carefully avoided. If symptoms of nervous disturbances arise from fever, as they are especially apt to do in infants, cold sponging or even the bath gradually cooled from 100 degrees to 80 degrees are far more efficacious and less dangerous than antipyretic drugs. Restlessness from cough demands Dover's powder, the dose at six months being one-half grain, never repeated except as required to secure rest. Opium is especially depressing to infants with broncho-pneumonia, and should always be guardedly administered. For attacks of cyanosis and collapse from respiratory failure, the best treatment is the hot mustard bath, made in the proportion of one tablespoonful of mustard to one gallon of water at a temperature of 100°. In this the infant should be immersed for from ten minutes to half an hour. It should then be removed and dried, and oxygen administered by inhalation strychnin and atropin hypodermically, and friction and even flagellation should be employed as external stimulants to respiration and circulation.

I am aware that the foregoing enumeration of our therapeutic resorts contains nothing new ,but these have all been tried and are recommended from personal experience. In no other disease are greater demands made upon our resources than in this; and I have thought that this review of the ones at our disposal would be profitable to us all. In every case we must fight continually and never despair; for to us it is given to command the forces in the battle against disease, and if we lose courage who then shall hope?

## CASE OF GUNSHOT WOUND.

By J. H. Fonger, M. D.

Jan. 1st, 1901, 5:30 o'clock p. m. Henry Ludwig, German, age 16 years, accidentally shot in the abdomen with 22 calibre Winchester rifle; the ball passed through his overcoat, undercoat, vest and underclothes, entering the abdomen directly over the right kidney. The probe failed to locate the direction the ball had taken. The symptoms seemed to point to rupture of the intestine, probably of the ascending colon, I decided that an operation was best; the patient's brother wished to have it put off until the arrival of his parents, who had been sent for, 15 miles distant. A quarter gr. of morphine was administered hypodermically, but failed to relieve the symptoms to any extent; however no more opiates were given for fear of masking the symptoms. At eleven o'clock he appeared to be somewhat easier. The pain was of a sharp luncinating character, passing from the umbilicus back through the right kidney. A catheter was passed and about a pint of urine drawn, containing a considerable quantity of blood. About one o'clock his symptoms were much better; at this time his parents arrived. After some debate they wished to have the operation put off until morning or until the symptoms became worse. He was kept quiet in bed, that side being strapped with adhesive plaster, as there seemed to be considerable spasm of the abdominal muscles. In the morning his urine was drawn, being unable to pass it himself; a small amount of blood was present. During the day he rested quite well and complained of feeling hungry; he was allowed a glass of milk only. He rested well until about six o'clock, when alarming symptoms set in. There was severe pain across the lower portion of the abdomen; his pulse was rapid (110) but weak, his breathing was very difficult. He was given ¼ gr. morphine, 1/200 atropine; in a few minutes he became easier and fell asleep, and slept till about six in the morning. Until this time there had been no passage of the bowels, and he had been unable to pass urine. At ten o'clock he passed urine; no blood was present. His pulse was 80-90, temperature 99.4. He rested well until the following day when his mother gave him a breakfast of bread and milk and oat meal. This was strictly against orders, his bowels moved six times during the day and he was allowed to get out of bed each time, the excuse being that he couldn't use a bed-pan.

At six o'clock his temperature was 103 pulse 110, very restless and weak. He was given a teaspoonful of brandy in a little water every half hour. At ten o'clock he felt better and went to sleep. The following morning his bowels moved naturally; urine of dark color but no blood, pulse 78, temperature 99.4. During the day he seemed bright and wished for something to read; he was given a newspaper and read for a couple of hours. From this time he steadily improved.

Geary, S. D., Jan. 12th, 1901.

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## FRACTURE OF THE FEMUR AT BIRTH.

At the meeting of the section on Orthopedic Surgery, at the New York Academy of Medicine, November 16, 1900, Dr. T. H. Myers presented a baby one month old under treatment for fracture of the femur just below the trochanter minor. The child was the second of twins and presented by the breech. The forceps failing, a hook had been used and caused the fracture with the very unusual displacement of the lower end of the upper fragment backwards in spite of the tendency of the psoas and iliacus to pull it forward. The next day the child was in great distress. There was extensive ecchymosis at the seat of the fracture, ⅜ in. shortening, oedema of the limb and eversion of the foot and, on any slight motion, the muscles attached to the anterior superior spine were thrown into a marked spasm which drew the lower fragment forward. A plaster of Paris jacket was applied in which was incorporated a steel bar, ¾x⅛ in., extending from the angle of the scapula to the toes, and bent at a right angle at the buttocks and the heel. Traction was made and eversion overcome by adhesive plaster applied to the limb and fastened to the steel foot-piece. The plaster of Paris enclosing the pelvis provided secure counter-traction. A light plaster of Paris bandage secured the limb to the splint and held back the upper end of the lower fragment. A fenestrum permitted the dressing of the cord. The child fell asleep at once on this application which made after attendance easy and promoted the comfort and general health of the patient. No displacement. Shortening ⅛ in.

Dr. V. P. Gibney said that fixation had been secured in an admirable manner. He asked why the limb had been flexed.

Dr. Myers said that he had in that way sought to relax the psoas and iliacus muscles in order to reduce the unusual displacement. He had also seen a directly lateral displacement in a case of fracture of the neck of the femur, probably caused by traction with the hook.

Dr. S. A. Twinch related the case of a child whose right femur had been broken at the junction of the middle and upper thirds in a difficult labor. The next day the limb was oedematous and almost black. He had put the limb up in a plaster of Paris spica with the thigh flexed nearly at right angle and the leg somewhat flexed. Eighteen days later the dressing was removed and the bone was found united in good position but with considerable callus. He recalled a recently reported case of the same kind in which a good result followed retention in place for three weeks of a starch spica bandage. The patient had been examined when 20 years old, and it had been impossible to tell which leg had been broken.

Dr. G. R. Elliott said that the mechanical problem was how to secure apposition and fixation, a problem well solved by the use of a steel band and plaster of Paris but capable of solution by easier methods as by the use of adhesive plaster.

Dr. A. B. Judson said that fractures in infancy usually united with great readiness and but little ultimate deformity.

Dr. H. L. Taylor said that when the femur was broken in so young a child deformity was not an uncommon result which he thought could not follow the method exhibited.

Dr. M. G. Campbell, of Atlanta, Georgia, commended the skill and carefulness with which the baby had been treated which were in marked contrast with the too prevalent idea that nothing of importance could be done for one so young. Before pain had been relieved and muscular spasm overcome rest had been impossible and feeding difficult, two things on which the welfare of a baby absolutely depended.

Dr. Myers said that a common method of placing the child in bed on its back and suspending the legs vertically made nursing difficult and did not control the position and secure immobilization so well as had been done in his patient, who lived at home and was conveniently carried to the hospital for attendance.

## TUBERCULAR INFECTION THROUGH TUBERCULAR MILK—NOT PROVED.

Theobald Smith, as the result of a number of experiments, is rather inclined to the opinion that the bovine and the human varieties of tubercular bacilli are not identical. He says, "Because for cattle bovine tubercular bacilli are very virulent, therefore they are also very virulent from man, more than are the human bacilli, we know from comparative bacteriology to be an absolutely unsound deduction." The bacilli do not possess a morphologic and cultural identity. The bovine grow more freely and are of greater breadth and, notwithstanding Koch's experiment, it does not seem probable that they are identical. Dr. Adami,( Medical Standard, of the McGill Adami (Medical Standard), of the McGill periments has concluded that the varieties are distinct and that infection of the human through cows' milk is very unlikely, excepting perhaps through ulcerative changes occurring in the tuberculous udders of the cow. Says Dr. Adami, "For myself, therefore, I cannot but come to the somewhat unsatisfactory conclusion, that whereas, in the first place, the milk of animals not suffering from udder tuberculosis may contain bacilli, nevertheless such milk is not of high infective power, and that, therefore the frequency with which the bacteriologist may by inoculation into the very susceptible guinea-pig find the milk to be infectious, it is not an absolute indication of its danger when employed as a food for man. Only when there is recognizable udder tuberculosis and active tubercle bacilli are discharged into the milk in enormous numbers, is there real danger. For practical pudposes, therefore, I agree with Nocard that as regards the milk-supply, local tuberculosis of the udder is what has to be more especially guarded against, and this, not because the evidence at our disposal affords absolute proof of the transmission of tuberculosis from cattle to man, but because the trend of the evidence is all in that direction."

Injection into guinea-pigs of milk from tuberculous cows or the feeding of such animals with the flesh or milk from the same animals, only serves to show the extreme susceptibility of the little animal to such inoculations, and particularly the susceptibility to tuberculosis, but there is nothing in such experiments that proves that the same milk would produce consumption when through the human stomach. The injection of tubercular bacilli from a cow that has the disease will, when injected into an animal of the same species, cause the animal to die of bovine tuberculosis, because for animals of the same species the germs have attained a greater degree of virulence. But it would not necessarily follow that this virulence would be maintained when injected into an animal of another genus. The injection of human tubercular bacilli from sputum will kill a guinea-pig in from two to eight weeks, but the injection of the same sputum into a calf will have only a slight effect over the animal, as the following experiment will show. A healthy calf was injected in the region of the shoulder with sputum which was full of tubercular bacilli obtained from a patient in an advanced stage of the disease. The calf remained perfectly well and six months after was killed and a minute examination of every organ of the body was made but not the slightest evidence of the disease could be found, excepting at the site of the injection, where was a small circumscribed tumor where the sputum had become encysted. On opening this tumor some cheesy matter was found which on microscopical examination was found to contain a few tubercular bacilli. There was no evidence that there was any growth of the germs and in all probability the larger number had been destroyed. What evidence then have we that the few tubercular germs at most found in the milk of a very limited number of cows would, when consumed cause general tuberculosis in the human?

The calf in the above experiment reacted to tubercular, but that was attributed to th presence of the encysted sputum and not to any general infection for there was none. It might be well to add that the animal was kept in the very best condition for the germs to develop, as she was housed where she could not obtain fresh air and sunshine. In fact, part of the time she was kept in the basement of a building. But one experiment does not afford conclusive evidence.—The Trio.

## CONTAGIOUSNESS OF TUBERCULOSIS.

Some idea of the contagiousness of tuberculosis may be obtained from an article in the Brooklyn Medical Journal, in which it states that "every consumptive patient expectorates between 30,000,000 and 40,000,000 tubercular bacilli daily and that in the city of New York alone there are not less than 15,000 persons suffering from this disease, i.e., that between 450,000,000,000 and 600,000,000,000 bacilli are disseminated every twenty-four hours." If the experiments of Flugge and Goldie are to be taken as any criterion, then the mere act of coughing must force a vast number of these bacilli into the air, for they demonstrated that if the mouth was washed with the culture of the bacillus prodigiosus, the mere act of coughing would throw so many prodigiosus germs into the air their presence could be shown by plates exposed at intervals of five, ten and fifteen minutes for five minutes each. Imagine the risk of infecting one's friends that one of these tubercular patients affords! Is it any wonder that tuberculosis has been such a devastator of the human race when through ignorance of its true nature it was so long regarded as hereditary. Koch's discovery of the bacillus tuberculosis and the study of its biology have taught us how to protect ourselves against the "great white plague." Since the germs exist in the discharges, particularly in the sputum the use of proper methods of destroying the living organisms contained will lessen the chances of contagion. At the Adirondack Sanitarium, where the use of Japanese napkins and paper cuspidors has been insisted upon for years the chances of contagion have been reduced to little or nothing, no case of tuberculosis having occurred in its employes in the past fifteen years. Every tubercular patient throughout the land should be provided with a cheap sputum receptacle which he should carry with him constantly and which should be cremated after use. Human infection undoubtedly passes from human to human through filthy habits which could easily be avoided.—The Trio.

## CASES OF FUNNEL CHEST.

The case of a girl 6 years of age was reported by Dr. Taylor, at the meeting of the section on Orthopedic Surgery, November 16, 1900, New York Academy of Medicine. She was seen in September, 1900, with a remarkable congenital depression at the lower end of the sternum, an instance of typical funnel chest of moderate degree. There were no evidences of rickets, and the child's health was good. She was the 5th child in a family of seven. Her mother had the same deformity, but knew of no other cases in the family. This condition was usually attended with some displacement of the heart, but without impairment of circulation or respiration. Persons thus deformed had made fair athletes and soldiers.

## FATAL CASE OF ABSCESS IN CERVICO-DORSAL POTT'S DISEASE.

Dr. Gibney exhibited a specimen from a patient affected with Pott's disease with deformity, at the meeting of the section on Orthopedic Surgery, New York Academy of Medicine, November 16, 1900. A girl five years of age had been treated as an out-patient by a head support for 2½ years. The appearance of an abscess over the spinous processes of the last cervical and first and second dorsal vertebrae made it difficult to adjust the support properly and the child became an in-patient. Aspiration gave only partial reduction of the tumor and a sinus was established by an incision after which the child was going about the ward with the head support comfortably readjusted. In the afternoon of November 8, 1900, cyanosis appeared, was relieved when the patient was put in bed but recurred during the night, when death seemed imminent. On November 9, a tumor was found in the outer portion of the left cervical triangle with deep fluctuation. Pressure did not increase the flow from the sinus but added to dyspnoea. Traction by the weight and pulley failed to give relief. Attempts at exploration of the pharynx increased cyanosis. Under ether (3 drams) an incision two inches in length along the sterno-cleido-mastoid exposed the carotid and a needle procured cheesy pus. With the finger between the carotid and oesophagus a second sac was ruptured with the evacuation of four ounces of pus and some bone detritus. A drainage tube was inserted. Respiration became easier. Temperature 104.4 degrees in the afternoon. November 10 and 11 the patient slept fairly well at night but with a good deal of coughing and had recurrences of difficult breathing and cyanosis in the daytime. The temperature fell to 100 degrees. After sleeping the early part of the night the patient died suddenly, on November 12 at 3:30 a. m. Autopsy in the afternoon showed recent pleuritic adhesions with normal lungs and abdominal viscera. The two abscesses did not communicate with each other directly. Cavities in the vertebral bodies communicated with the sac of the second abscess which extended along the anterior and lateral aspects of the vertebrae and downwards behind the pleura and almost surrounded the oesophagus. The pleural cavity was not invaded. There had been no paralysis. The cord was found to be pretty good in consistency all the way up. He had seen no less than six children die unexpectedly in the night with abscesses arising in this location from various vertebrae. Autopsies had not made clear the cause of death.

Dr. Myers referred to the case (related at the meeting of March, 18, 1898,) of a boy seven years of age offected with vertebra disease in this location, and an abscess discharging in the posterior triangle, whose temperature, on repeated trials, rose when the boy was up and fell when his lying down facilitated the drainage of the abscess.

The length of the world's railways is more than seventeen times the circumference of the earth at the equator.

The little city of Orea, in Sweden, owns and operates a nursery that brings it an annual income of $15,000, a sum that pays all the expenses of the municipality, including free schools for the children and a free telephone system for the people.

Bellevue Hospital has recently installed an apparatus for the hot air treatment of rheumatism, gout, and kindred disorders. It can be applied to the whole body or to the limb alone, and is capable of giving a temperature of 400° F.

Recent soundings show that the temperature at the bottom of the ocean is uniform in all depths from 500 fathoms to 4,200 fathoms, being about three degrees above the freezing point.

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**FEBRUARY, 1901.**

## WHY IS THE AVERAGE LIFE OF PHYSICANS SO SHORT?

Various estimates have been made of the average length of life of medical practitioners, some placing at as low as fifty-two years others as high as fifty-six. Clergymen live, on an average, ten years longer. The estimates have been based largely on statistics of general practitioners. A few figures relating to specialists would be interesting and would probably make a more favorable showing. It has long been recognized that typhoid fever has been a potent factor in reducing the average lifetime of physicians. Diphtheria has also done its part and tuberculosis has produced a death rate among physicians which is double that among the clergy. From these dangers the specialist is comparatively free.

Dr. Alfred Moeglict has contributed interesting statistics (Deutsche Aerzte-Zeitung, Nov. 15,) which go to prove that the medical teacher has a prospect of a shorter life from the day he first occupies his professional chair. If the normal death rate is represented by 100, the death rate for pyhsicians would be 111 and for medical instructors 113.8.

But, after all, are not the causes of early death among physicians to a large degree preventable? The man whose life work is to teach others to take care of their health would naturally be presumed to take care of his own. Too commonly however, we find him doing the very opposite. Exposure to infectious diseases he cannot avoid, but cannot the risks be greatly lessened by proper attention to disinfection, and a due regard to the maintenance of a good physical condition which is the strongest safeguard against the onset of disease? Exposure to inclement weather has sent many a physician to an early grave. Long drives in storms and at unseasonable hours are unavoidable but careful provision against these hardships by warm clothing, comfortable conveyances, and judicious eating and drinking would greatly lessen the dangers. The average business man works during the day and sleeps at night and rests on Sunday; the physician frequently works night and day not excepting Sunday. While a certain amount of overwork is unavoidable, the physician himself is responsible for a great deal of the injustice he suffers in this direction.

We have frequently known of visits being made late in the evening which could just as well have been made during the day, or of a journey undertaken at night in order that office hours might not be broken into.

Young physicians are sometimes given to boasting of the way in which they abuse themselves by overwork. How often we meet the man who has not had his clothes off for two weeks, or who has had no sleep for ten nights, except what he could get in his buggy. Very brave and self denying; but would it not be better for the doctor, and his patients if he undressed once in a while and took a bath; if, when pressed with work, turned over an unimportant case to a less popular physician while he himself took a much needed night's sleep in a comfortable bed. Worry, overwork and bodily suffering often tempt the unwary to use stimulants or narcotics, or both. The use becomes a habit and too often alas cuts short a bright and promising career.

A study of the habits of physicians leads to the belief that if their lives are short it is their own fault. If they followed certain rules there is no reason why they should not live as long as other people. These rules may be briefly summed up as follows:

1. Do not work beyond your strength. The judicious worker can accomplish more than the spasmodic worker.

2. When your practice becomes too large, turn over the most unprofitable part of it to younger and less busy men. As soon as possible decline all night work.

3. Avoid intemperance, be home at meal times, and retire early.

4. Save a part of every year's income so thaf you may have something to fall back on in sickness or old age.

5. Take at least a half day's vacation once a week and a month once a year.

## COFFEE AS A BEVERAGE.

We are a nation of coffee drinkers. It is estimated that one-third of the entire coffee production is consumed in the United States. As to its value as a food there are differences of opinion. If it is the harmful and even dangerous substance which some people believe it to be, then the whole human family must be injured by it, for there is not a race—savage, pagan, or civilized that does not use coffee or some other substance where the active principle is almost identical, viz: tea, cocoa, kola and all that class. That it is a valuable article of diet must be admitted, but that it is often abused is equally true. Roasted coffee contains caffein which exerts the larger part of the physiological effects of coffee and caffeone which consists of volatile substances developed during the process of roasting. To caffeone is supposed to be due the brain stimulation and activity which a cup of coffee produces. The intellectual faculties most influenced by the use of coffee are the imagination and the memory. The capacity for both mental and physical work is increased, the attention can be more firmly fixed while thought and conception become more vivacious. While the beverage has many useful properties it has also its harmful features. It can readily be seen that its stimulated effect in moderate quantities would be injurious when used in excess. Each individual must solve the problem for himself. One man can take a cup of coffee at bedtime and sleep soundly all night, another after taking a much smaller quantity will lie awake for hours. Some cannot digest coffee but suffer from eructations until the following meal, others find their digestion improved by its use. It may be safely assumed that the more exhilaration a person feels after taking coffee the more likely is he to become nervous and dyspeptic by its excessive use.

The effects of excessive coffee drinking are similar to those of alcohol. Mendel has drawn especial attention to this point and says of a certain class of workink women in one of the factory districts of Germany:

"At every meal, from early morning until late at night, the workingwoman drinks her coffee, which always stands ready on the stove. The coffee energizes them to work, stills their hunger, cheers them in misfortune; in short, what the whiskey flask is to the laborer, the coffee-pot is to these women."

On the question of using milk and sugar in coffee, Dr. Leszyncky, (Med. Record, Jan. 12,) has this to say:

"The habitual daily indulgence in coffee, even in moderate quantity, by those who are oversensitive to its action, invariably leads to persistent functional disorder of the nervous system, as well as to disturbance of digestion, which rapidly subsides when it is discontinued. No doubt the latter is often occasioned by the addition of too much milk and sugar, which favors the process of fermentation. Whether or not the general nervous symptoms are to be considered secondary to the disturbance of digestion, further investigation will determine. Some physicians believe that coffee without the customary milk and sugar never disturbs the gastric function. While this assertion is often substantiated by clinical observation, it must not be accepted without reserve, for digestive troubles frequently occurs also in those who indulge excessively in coffee, without the addition of either milk or sugar. In some instances, it is possibly aggravated by coffee of an inferior quality or by various adulterants. Leven believes that the action of sugar and that of coffee are antagonistic. He says: 'Coffee produces anaemia of the gastric mucous membrane and diminishes its secretion; if this be often repeated it terminates in a hyperaemia, a congestion which in itself is the cause of the dyspepsia. Sugar, on the contrary, excites the gastric secretion hence it is necessary to sweeten the coffee.' This theory, however has found no support."

## DR. GOULD AND THE PHILADELPHIA MEDICAL JOURNAL.

Under the able editorship of Dr. George M. Gould the Philadelphia Medical Journal rapidly gained a wide circulation and attained an important position among medical weeklies. We regret to learn that the relationship no longer exists. Without a day's notice and without any complaint to him or criticism of his editorial management, Dr. Gould was discharged by the board of trustees, who evidently are determined to conduct the journal on a purely commercial basis. Dr. Gould and his friends started out with the idea of creating "an independent and scientific professional organ, uncontrolled and uninfluenced by what has been the curse of all medical journalism, the domination of publisher and of partisanship, indeed of any influences except professional ones."

Their idol is shattered. Henceforth the affairs of the journal will be dictated by the one man who holds the majority of the stock, and editors will be selected whose views will accord with the theory that the capitalist should rule the editorial department.

The profession, however, is not likely to lose the services of Dr. Gould. He has received hundreds of letters advising the founding of a new medical journal so organized that no one person can govern its fate. It is proposed to incorporate the company and offer capital stock to members of the profession in the following manner:

1. Founders' shares, at $50.00, giving the owner thereof a life-time subscription to the new medical weekly, and perpetual participation in the profits. (The number of founders' shares is limited, and the holders will secure a preeminent influence in the ownership and conduct of the journal. It is the purpose to make

it an honor even to one's children to have been a founder.)

2. Preferred shares, drawing six per cent. dividends from the net earnings, subscriptions to which are requested in amounts of $100 and over. (The preferred stock offers a safe, permanent, and profitable investment.)

3. For $10.00, three years' subscription to the journal and $10.00 worth of common stock. (The common stock participates in dividends upon the net earnings after those paid upon preferred shares.)

4. For $5.00, one year's subscription to the journal and $5.00 worth of common stock.

These offers, any one or all, may be withdrawn at any time and without notice, when a sufficient working capital has been secured. The pupose is to maintain the par value of the stock and issue only sufficient for a safe working capital, thus insuring full dividend-value on all investments.

In order to enlarge and perfect the new weekly so far and fast as possible, the subscription price will be placed at $4.00.

## THE SALT CURE FAD.

A special cable to the Pioneer Press has this to say of the manner in which the American public is being imposed upon by startling results alleged to have been obtained by the use of salt solutions.

London, Jan. 12.—Medical men here have been vastly amused at a hoax which, according to numerous cables, apparently has been played upon the American public by some humorist who, possessing ancient volumes of the Lancet, has been making extracts about the salt cure and selling the same as up-to-date copy.

There is nothing in this cure. Medical records show that Sir G. Wren practiced it successfully as early as 1656; that Sir Spencer Wells and Sir Walter Richardson used it extensively for cholera in London in 1848 and 1849, while the experiments on dogs reported from Chicago are identical with Richardson's experiments of twenty years ago in London.

The injection of a salt solution is certainly a wonderful remedy and has been used regularly in the London hospitals for many years, but the salt in the solution has neither nourishing nor stimulating effect. What happens is this: When a person loses beyond a certain proportion of blood the veins collapse and little or no blood passes to the heart, which stops beating. The veins simply need more fluid. Two thousand years ago it was discovered that the blood of animals was sometimes efficacious, but often dangerous. Pure water was tried, but it was found that this injured the blood remaining in the veins, paralyzing the muscles. As it was known that the blood contains considerable sodium chloride, or common salt, Libayius experimented with it in 1815.

The mixture now used by British doctors is: Chloride of sodium, 1 drachm; chloride of potassium, 6 grains; phosphâte of sodium, 3 grains; carbonate of sodium, 20 grains; alcohol, 1 drachm; water, 1 pint.

This is warmed to blood heat and upwards of half a pint injected into a vein at the elbow. In a few seconds the heart becomes refilled and again beats. In from four to five minutes consciousness is recovered.

In cholera the blood thickens and ceases to flow. A pint or two of saline solution refluidizes it, though it does not always save the life. Richardson in 1848 in the case of a woman apparently dead restored her six times, but she finally died.

Thus salt is not an elixir, but is used merely to prevent the extra fluid which is needed to start the heart's action from having a deleterious effect. The idea of eating salt beyond the small quantities necessary to have good effects is scouted as absurd. The result is more likely to be harmful.

## A YOUNG MARTYR TO DUTY.

Dr. S. D. Dean, late interne at the Minneapolis City Hospital, died of diphtheria on Jany. 8th.

## ABDOMINAL vs. VAGINAL HYSTERECTOMY.

Much difference of opinion still exists as to the best approach, surgically, to the uterus and adnexa. In a paper read before the Mississippi Valley Medical Association (The Physician and Surgeon, Nov., 1900) Dr. Henry O. Walker of Detroit presents his views by drawing the two following pictures:—

"Picture 1—Abdominal Hysterectomy.—Mrs. M., aged fifty-seven, gave a history of pelvic trouble dating back to her last confinement when she probably had a left salpingitis. Menopause occurred at the age of forty-eight. For two years previous to the time of operation she had a vaginal discharge, bloody and watery, with an offensive odor of late, general condition fair, no cachexia. Vaginal examination revealed a ragged ulcerating os uteri together with an indurated and slightly fixed condition of the uterus to the left. Rectal and bimanual manipulation did not reveal whether the fixed point was extension of the disease (which the microscopist stated was carcinoma) or an old inflammatory exudate. Here was an undoubted case of carcinoma of the uterus not so far advanced but that surgical interference was indicated. In the opinion of the writer the abdominal route was the method that offered the best chance for effective work and assured the best interests of my patient. A long median incision was made and the patient placed in the Trendelenberg position. The omentum was found to be extensively adherent to the left. It was carefully separated from its attachment, ligated and portions removed. As I progressed I found induration extending along the left broad ligament, which was tied and cut away. The extension of the disease was downwards and in the mass was imbedded the left ureter. This part of the operation I scarcely need state required patient industry. I succeeded, however, in leaving the ureter intact and removing all tissue, glandular and otherwise, well beyond its environments. The uterus was removed in the usual manner, the vaginal opening in the peritoneum closed by two rows of interrupted catgut sutures. I forgot to state that the broken down cervix was previously cut away as much as possible, and the uterine cavity cureted to avoid septic infection. The abdominal wound was closed with interrupted silkworm-gut sutures without drainage. She made a proper recovery, and it is now two years ago the 20th of May last since the operation was done and there is yet no evidence of recurrence.

"Picture II.—Vaginal Hysterectomy.—Mrs. C., aged thirty-seven, mother of five children, labors easy, with a history of continued uterine hemorrhage not severe for the last three months, latterly with a bad odor. Examination revealed involvement of the cervix, afterwards verified by the microscopist as carcinoma. Bimanual and rectal manipulation did not discover any involvement of the surrounding tissues except an enlarged tube and probably cystic ovary. The vagina was capacious, the uterus low down and freely movable—as promising an opportunity for vaginal hysterectomy as one could wish for. Operation was performed September 9, 1900, after two days' preparation in the hospital, short time enough in any abdominal operation when possible. There was no breaking down of the growth, and as the uterus had been cureted a week previous I saw no use in first cutting away the growth in the cervix. A curetment with blunt instrument was done with irrigation, and a carbolic acid tampon inserted into the uterine cavity. Chloroform was used as an anesthetic, the patient having been put in the extreme lithotomy position with a 'Clover's crutch.' The cervix was seized with a strong Museux forceps and a thorough division made of the vaginal membrane around the cervix well up above the seat of disease. Blunt dissection made anteriorly separated the bladder from the uterus and an opening was made into the peritoneum which was forcibly stretched with the index fingers so as to admit a good-sized gauze pad. The same procedure was then done posteriorly, first tying the right broad ligament in sections well out from the uterus with a number thre catgut ligature, then cutting it from its uterine attachment, and removing the right tube and ovary, which was accomplished with ease. The next step was the pulling down of the uterus and the application of a ligature on the left side. This was not so easy as I found an enlarged tube and cystic ovary with extensive omental and peritoneal adhesions. The former was tied and cut, while the latter was separated with tedious effort, during which time the cyst was ruptured, bathing the parts with its contents, evidently septic. I ligatured with difficulty the broad ligament in section above the tube and ovary. The vaginal vault and peritoneum were approximated as much as possible, leaving an opening for drainage for the possible infection by the broken cyst and the considerable oozing that occurred, a wise provision as it afterwards proved. The cavity was thoroughly irrigated and a gauze drainage introduced, the vagina being packed with strips of gauze. I will state that the gauze drain was covered with guttapercha tissue, a drainage that has served me best for several years in abdominal work where drainage was a necessity. The patient did well for seven days, when she had a sudden chill and a rise of temperature to 103.5° Fohrenheit. This occurred the following day when I broke with my finger through the drainage opening an abscess containing two or three ounces of pus. Continuing irrigation and drainage she made a good recovery and returned to her home on September 30, 1900. It will be observed that I did not apply the clamp forceps in this instance, which would undoubtedly have expedited the procedure very much.

"A seven-minute vaginal hysterectomy with clamp forceps is a brilliant feat. Did any of you ever listen to the groanings of a poor victim with these implements of torture dangling between her legs while at every inspiration and any movement of the body she cried with pain? Furthermore, did you ever sniff the foul stench in connection with this method of controlling hemorrhage? Did you ever see a poor woman with a leakage of urine from her vagina the result of the use of these same forceps? Did you ever hear the telephone ring in the middle of the night informing you that your patient was bleeding to death when in the afternoon of that same day you had removed these forceps? Would any of you think that it was scientific surgery to leave several forceps in an abdominal operation to control hemorrhage except in an extreme case? I wish at this time to enter my solemn protest against this barbaric act of using clamp forceps in doing a vaginal hysterectomy.

"These pictures present, I assume, the true aspect of the subject. The first picture portrays what I never could have done by the vaginal method. The second portrays what I could have done better, safer and surer by the abdominal method. I would not have you understand but that under certain conditions the vaginal route in pelvic surgery offers at times equal or better advantages than the abdominal route.

"Conclusions.—All things being equal the abdominal route offers advantages for a more complete hysterectomy than the vaginal route. First, you are better able to see what you are doing; second, you are much better able to control hemorrhage than by the vaginal route where you are working in a dark cavity; there is less liability of slipping of the ligatures, and if they do slip they are got at more easily than by the vaginal section; third, the danger to the ureters is minimized, and if injured the opportunity for repair is better, while if injured by the vaginal route you would have to do an abdominal section to make the repair; fourth, the prevention of sepsis is more certain by abdominal than by vaginal section, aided in the first instances by the Trendelenberg position which gives opportunity for full protection of the intestines and peritoneum, while in the latter the opportunity for protection is limited, as it is an utter impossibility to render perfect asepsis in the vagina where there has been a long standing infectious disease.

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## A. M-P. ASSOCIATION.

The next annual meeting of the American Medico-Psychological Association will be held in Milwaukee, Wis., June 11, 12, 13 and 14, 1901. The date has been placed a little later than usual that this deservedly popular convention city may be visited at a pleasant season.

Hotel Pfister, selected for the meeting of the Association, has ample accommodation for all members and offers special rates. Its rooms are airy, spacious, and well furnished; it has an excellent auditorium, a pleasant restaurant, and a large banqueting hall.

A full attendance at the meeting, which promises to be one of unusual interest, is earnestly desired.

Will those members expecting to read papers, kindly send titles thereof to the Secretary as early as possible.

It is announced with much satisfaction that Dr. Warren P. Lombard, Professor of Physiology in the University of Michigan, will deliver the annual address. This will have to do with Reenforcement and Inhibition of Nervous Processes.

Very respectfully,
C. D. Burr, Secretary.
Flint, Mich., Jan. 11, 1901.

## Book Notices.

A BOOK OF DETACHABLE DIET LISTS for Albuminuria, Anemia and Debility, Constipation, Diabetes, Diarrhea, Dyspepsia, Fevers, Gout or Uric Acid Diathesis, Obesity, Tuberculosis, and a Sick-Room Dietary. Compiled by Jerome B. Thomas, Jr., A. B., M. D., Instructor in Materia Medica, Long Island College Hospital; Assistant Bacteriologist to Hoagland Laboratory. Second Edition, Revised. Philadelphia and London: W. B. Saunders & Co. Price $1.25 net.

Every practitioner knows the difficulty of advising patients in respect to diet. To enumerate the articles which may be eaten and which may not be eaten is tiresome and impossible for the patient to remember. With the diet lists compiled by Dr. Thomas the physician can in a moment hand his patient a complete list of what he may eat and what is best for him to avoid.

AMERICAN TEXT-BOOK OF PHYSIOLOGY. Edited by William H. Howell, Ph. D., M. D., Professor of Physiology in Johns Hopkins University. Vol. II, royal octavo, of nearly 600 pages, fully illustrated. Cloth, $3.00 net; sheep or half-morocco, $3.75 net. Philadelphia and London: W. B. Saunders & Co., 1900.

Even in the short time that has elapsed since the first edition of this work there has been much progress in physiology, and in this edition the book has been thoroughly revised to keep pace with this progress. The result is that the American Text-Book now represents the most modern work on physiology. Statements and theories that have been shown to be wrong or improbable have been eliminated, and the new facts discovered and the newer points of view have been incorporated.

The chapter upon the Central Nervous System has been entirely rewritten in the light of the latest knowledge, with the intention of rendering this important branch of the subject suitable to the needs of students and practitioners. A section on Physical Chemistry forms a valuable addition, since these views are taking a large part in current discussion in physiological and medical literature.

The first edition of this work was pronounced to be the best exposition of the present status of the science of physiology in the English language, and in its revised form the book will doubtless remain the leading work on physiology for students and practitioners. The subjects comprised in this volume are: Muscle and Nerves; Central Nervous System; Special Senses; Special Muscular Mechanisms, and Reproduction.

### INSIPIENT HIP DISEASE.

Dr. Judson, on November 16, 1900, at the meeting of the section on Orthopedic Surgery, New York Academy of Medicine, presented a girl seven years of age with symptoms of disease of the left hip of twelve weeks' duration. There had been lameness and pain in the knee, the latter so severe that the child had to be lifted very carefully. Rheumatism was excluded. Night cries had followed unusual exercise in the day time. Pain and lameness had been inconstant, recurring after intervals in which the child was apparently entirely well. General condition excellent. A diagnosis of hip disease had been made, in consultation with the family physician, on the above history, and the following signs which were observed October 25, 1900. Fullness of the left groin and flattening of left natis, the left gluteal fold more shallow than the right, left thigh and leg ½ and ¼ in. less in circumfrance than the right and limitation of extreme motion in every direction with reflex muscular action. Limitation of motion was not found at the second examination but reappeared at a later date. On presentation the child walked when the splint was off with no defect in her gait. When she was examined slight limitation of motion and reflex spasm were found by different observers on attempting extreme flexion, extension, abduction, rotation, and abduction with the thigh flexed at a right angle. An ischiatic crutch had been applied November 15, to be worn in the daytime with a high sole on the well foot, directly to relieve the limb from the labor of locomotion and the affected bone from bearing the weight of the body, and ultimately to permit resolution of the inflammation by natural processes. Prognosis: absorption or incarceration of the focus in the cancellous tissue and recovery, after one year or two years, without deformity or any trace of disability.

Dr. Taylor and Dr. Myers recognized the presence of some of the signs of hip disease and thought that a positive diagnosis required further observation.

Dr. Gibney said that after the reported and present examination he would give the patient the benefit of the doubt and consider the case as an incipient one and if changes occurred requiring more drastice measures he would seek very seriously to overcome the reflex spasm by immobilizing or putting the parts at rest. If the perineal crutch could be relied on to give the hip rest enough so that resolution would take place, however small the focus or wherever located, the treatment was perfectly justifiable. He appreciated the importance of protection from weight and concussion, but thought that an apparatus which allowed pressure of the toe on the ground did not give enough protection to the joints, so far as reflex muscular spasm was concerned. He questioned whether it did not add to the reflex spasm to have the patient stepping on the toe and ball of the foot.

Dr. Judson said that the ischiatic crutch, as commonly worn, allowed the anterior part of the foot to reach the ground. The toe could be entirely removed from the ground by using a longer crutch and a higher sole, but this would lessen the ability of the patient to walk. He thought there was an important difference between concussion transmitted from the heel through a straight bony column to the affected joint and the same modified in transmission by the interposition and action of the ankle joint controlled by the muscles of the calf.

Dr. Gibney thought that protection of the joint was not so important as relief obtained by preventing reflex spasm.

Dr. Elliott questioned whether the form of apparatus worn by the patient was sufficient in a patient having a good deal of reflex spasm.

Dr. Taylor questioned whether in a case presenting well marked symptoms it would not be better to apply a splint with adhesive plaster to be worn day and night than to use an ischiatic crutch to be removed at night.

Dr. Judson said he had lost faith, if he ever had any, in the effect of apparatus designed to elongate contracted muscles or to arrest or prevent reflex action by a direct mechanical pull. Indirectly these important objects were gained by arresting the functions of the diseased joint thus permitting abatement and resolution of the inflammatory action, which was the incitement of reflex muscular action. The latter ceased as soon as arrest of function brought about resolution. The two chief functions of the hip joint were motion and weight-bearing and that the latter, carrying with it concussion, was more important as a factor in pathology and treatment than the former. The ischiatic crutch did not so thoroughly remove the weight of the body as putting the patient to bed but the other advantages were obvious. It practically put the limb to bed and let the patient run about and go to school. In the painful periods of hip disease the tradition splint, combining the protection of the crutch with traction by adhesive plaster, was indispensable, for the relief of pain by fixation. ,

## SUITS FOR MALPRACTICE.

The fact may not be generally appreciated that there is not one physician in the United States who can be considered safe from the troubles, anxieties, and financial loss of a malpractice suit. There is a large class of fourth-rate lawyers who obtain their living by feeding on their more honest and more thrifty brothers of the human family. Lacking the industry or the intelligence to gain an honest livelihood, these parasites lie in wait to spring upon the unfortunate being who may chance to expose himself to their fangs. A few years ago it was the railway companies who supplied this class with victims The railroads, however, through various methods have so far succeeded in distancing the parasites that but few damage suits are now brought against the railroad companies. At present, the cities, towns and municipalities seem to be the objects of attention from them, and damage suits are filed to-day against some of the large cities almost sufficient to supply the courts with work for the next century. Signs, however, are already appearing that corporations will soon be discarded for game less bulky but perhaps more easily held. The doctors are beginning to be victims. Malpractice suits, like train robberies, are apt to come in epidemics, and, like a prairie fire, when once started no one can foresee the end. Probably these suits would be much more common than they already are, if doctors, as a class, were richer men. Many of the more prudent physicians have foreseen this storm and have robbed the highwayman of his intended prey by not holding property in their own names. The fact is notorious, but is not always recognized, that in almost all instances suits for malpractice are simply blackmailing schemes. The suit is brought for a compromise. The lawyer takes the case on the percentage basis. The idea is that the doctor will compromise the case rather than have it brought into court. The fact that there may be no basis for the charges brought does not matter, as the doctor will avoid a suit at almost any cost. The notoriety, the loss of business, loss of time and worry, incident to a suit of this kind, is something that cannot be estimated in dollars and cents. Even in a successfully defended malpractice suit, the physician is the loser. To be sure, a very small percentage of malpractice suits result in the conviction of the physician. Such cases usually mean the retirement of the doctor from that part of the community. It is ruination for him. We are glad to note that the insurance idea in regard to these cases has been broached by some. We do not know whether it would be possible legally to embody in concrete form such an idea as would be practicable. The clubbing together of physicians for defense has been carried out in England quite extensively, and so far as we know, with success. The Medical Defense Unions are quite a feature of the English medical world. A practicable organization in this country, not on the insurance order, however, was organized over a year ago at Ft. Wayne, Indiana. So far as we are informed it is the only one of the kind in existence. This organization undertakes to defend those who place themselves under its ægis against suits for malpractice and takes entire charge of the case. The company, for such it is, steps into the place of the physician and defends the case for him up to a certain fixed amount. In the absence of Medical Defense Unions, the physician should certainly appreciate the advantage of a method of protection where an adept lawyer, one who is a specialist in this line of work, is at his disposal. The physician who is protected should be able to sleep easy. —Western Medical Review.

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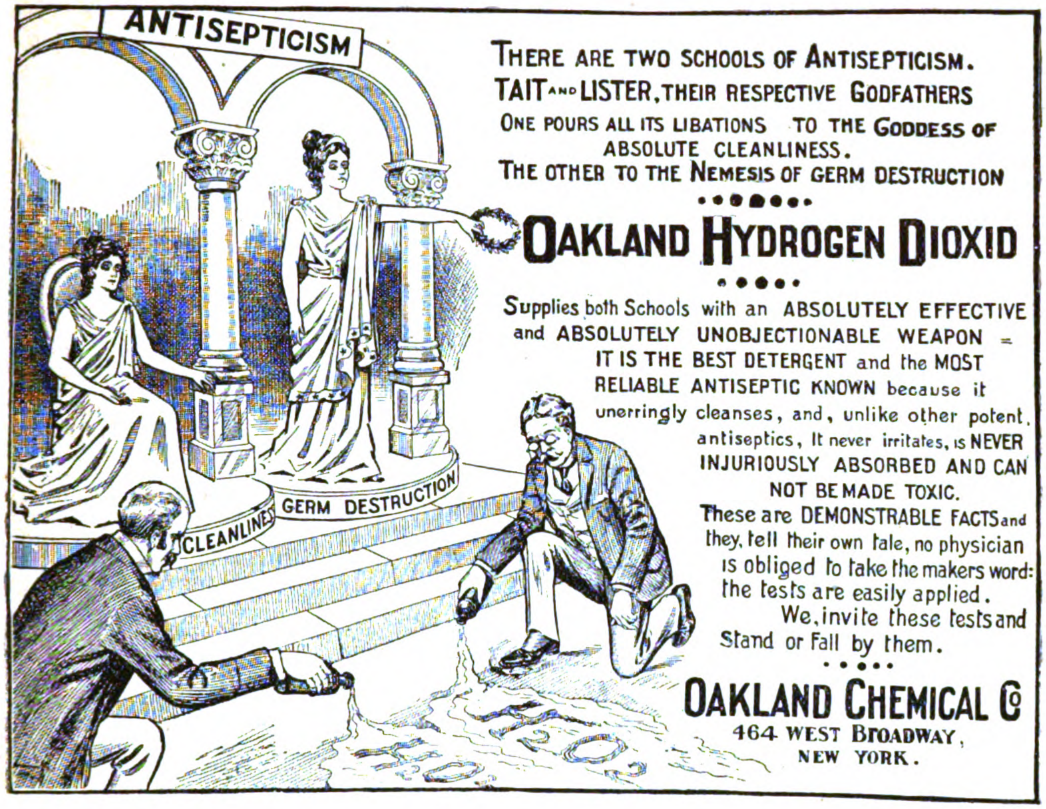
The American Association for the Advancement of Science says the following lines are all that is necessary for the physician to learn in order to prescribe in the metric system:

1,000 milligrams make one gram.
1,000 grams or cubic centimeters make one kilo or liter.
65 milligrams make one grain.
15½ grains make one gram.
31 grame make one ounce.



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# "RAILWAY SURGERY IN AMERICA."

By Clark Bell, Esq., LL. D.,

President International Medico-Legal Congress of New York, 1889; President Medico-Legal Society of New York; Delegate from the Government of the United States to the International Medical Congress of Paris, 1900.

The most important discovery of the 19th century beyond question was that of steam motor power.

Without detracting from the enormous value of steam in marine navigation, its discovery resulted in the locomotive and the railway, which became, in a new country like America, the most important factor in the development and growth of a great nation.

Beginning near the end of the first third of the century, our first railway was built in 1829, but it was 1832 and 1833 before the stage coach and the packet boat on the canal gave way to the iron horse. To-day in the United States of America there are nearly 200,000 miles of completed railway in operation, which added to those of the Dominion of Canada and Mexico would place the railways of the continent of North America far exceeding those of the rest of the habitable globe in length.

In the United States of America more than 875,000 men are employed in their management and operation—an army trained to be skilled in this domain of human endeavor.*

Read before the International Medical Congress, Paris, 1900.

Read before New York Medico-Legal Society and Section of Medico-Legal Surgery, November 21, 1900.

It has grown by the experience of the two-thirds of the century since its introduction to its present enormous volume and proportion, and has become the most important factor in the civilization, development and progress of the American continent.

It is the universal method of transportation from place to place, and there are few persons living in America who do not travel upon the railway.

It has introduced, as one of its consequences, a new field of Surgery. In America it is called "Railway Surgery."

As a necessity it has developed an entirely new class of injuries, unknown to surgery before its advent, which befall two classes of men:

1. Its own employees.
2. The general travelling public.

Accidents upon railways are inevitable, and while superior skill, precaution and preventive methods may greatly reduce their occurrence and significance, no human precaution can seemingly prevent them.

These accidents result in claims against the railway companies by the injured for compensation, which come before the judicial tribunals in actions which are classified as "Railway Damage Cases," and the reason why this class of litigation has become so enormous is because of the very large growth of the railways and the almost incredible volume of travel.

Every American railway suffers from "railway accidents." It must meet these claims, and it has become a problem in railway management how best to meet these exigencies.

To minimize the railway accidents, and the amount of damage to life and limb, is one of the highest economic problems in American railway management.

The great railway systems of the American continent, those who are most successful in answering this problem in its financial aspects have met it in two ways:

1. By the appointment of a chief surgeon for the whole system, or railway if it be a single line, with a staff of local surgeons distributed at the most important and accessible points on the railway, subject to instant call by telegraph and telephone from the chief surgeon.
2. By the establishment of a hospital system for the whole line under charge of a competent house surgeon and assistants with every modern appliance for surgical or medical relief; all under the direction and supervision of the chief surgeon, which completely equipped, is always ready for instantaneous relief to

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*On June 30, 1898, 874,588 persons were in the employ of the railways of the United States of America, of whom 4,956 were general officers; 3,925 other officers and the remaining 865,677 were agents, clerks and employees.

**SANMETTO** FOR GENITO-URINARY DISEASES.

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CYSTITIS—URETHRITIS—PRE-SENILITY.

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employe or passenger in case of accident.

Some of the better equipped railways have also hospital relief cars, furnished with every appliance and necessary, which can reach the scene of an acicdent on a telegraphic summons in the shortest possible time.

Experience has demonstrated that by comparing the result of those railway systems which have adopted this plan of a chief surgeon and local staff, and a railway hospital, upon a given line, with those who have not done so, that the saving to the railway in the amounts paid for damage claims is something enormous.

The reasons for these results may be briefly stated as follows:

(a) As each railway should assume the care of the wounded among its own employes in case of accident, it is plain that it could discharge this obligation better through its own hospital than otherwise.

(b) It is found by experience that the injured passenger thus cared for by a railway corporation is better cared for, his injuries better understood, their nature and extent more clearly defined and accessible to both the injured and the railway official, and their adjustment usually arranged, amicably and more justly to both parties.

(c) It is also a shield and defense to the railway company in a large class of unmeritorious and exorbitant claims, frequently made against railways by unscrupulous claimants, aided and abetted usually by more unscrupulous accessories and still more unscrupulous medical men. In the past, very large verdicts both in America and in Great Britain, have been obtained in cases of obscure and ill defined injuries claimed to have grown out of collisions of railway trains, affecting the nervous system, and notably a class of cases, most of whom are without merit, and which have received the name of "railway spine," where the injury is claimed to affect the spinal cord, but without lesion or any visible or ascertainable mark of injury.

All American railways have not adopted the hospital system, and some have not adopted the chief surgeon and staff system; but it is only a question of time when every American railway will have its chief surgeon and local staff.

The injuries resulting from railway accidents are of a kind that may be classed as sui generis. If a man's arm or leg is crushed by a train it presents an injury unlike any other injury.

The whole category of railway injuries, due to shock in collisions, is new and not comparable to injuries from ordinary causes, and these have grown up as an adjunct and accessory to the duty of a railway surgeon.

Frequently the chief surgeon devotes all his time and attention to railway injuries, as do many of his local surgeons, at points where many accidents occur.

The necessity of interchange of views among surgeons engaged in this class of practice was doubtless the cause of organization among the railway surgeons of the United States.

### Section of Medico-Legal Surgery, of the Medico-Legal Society.

The growing importance of railway surgery in medical jurisprudence was distinctly recognized by the Medico-Legal Society, on September 6, 1893, by the organization of a section of Medico-Legal Surgery, embracing railway counsel and railway, military and naval surgeons, under a chairman and twenty vice-chairmen, selected ten from each profession from the various states of the American Union. This action was based upon recommendation made in an address entitled, "Railway Surgery in Law and Medicine," made before the National Association of Railway Surgeons, at Omaha, Nebraska, June 7, 1893. (Vide Med.-Legal Jour., Vol. I., p. 37 [June, 1893]; Ibid. vol. XI., p. 203.) Chief Surgeon Granville P. Conn, M. D., of Concord, New Hampshire, was its first chairman, and was succeeded by Chief Surgeon J. B. Murphy, M. D., of Chicago, Ill. He was succeeded by Chief Surgeon W. B. Outten, M. D., of the Mo. P. R. R. system. Clark Bell, Esq., was chairman of the section 1899, and Chief Surgeon C. K. Cole, M. D., of Helena, Montana, was elected for the year 1900.

The chief merit and usefulness of this organization lay in its uniting in its labors railway lawyers of eminence and distinction, and the leading chief surgeons of the prominent American railways, so that both sides of all questions could be studied, as well from the legal as from the surgical and medical side.

The record of the labors of this body can be best considered and appreciated by its annual reports. The first annual report, of the year 1894, showed the history of the organization, and gave its officers and a list of members, embracing twenty-eight of the leading chief surgeons of American railways, and a large number of local surgeons, military and naval surgeons, and eminent railway counsel. An annual report of its labors has been submitted to the parent society, which has been published each year in the Medico-Legal Journal, and the report for 1899 is attached to this paper.

### The International Association of Railway Surgeons.

This is, so far as numbers go, the most powerful of the societies of railway surgeons.

It was founded in June, 1888. The idea of it founders was to open its doors to every railway surgeon in the United States and the Canadas, and it soon grew into a very large body. At the meeting held at Galveston, Texas, May, 1894, the enrolled membership exceeded 1,700 names, and there were nearly 1,000 persons in attendance at the session. Some there thought that the body was too large and unwieldy, and that that period was perhaps the maximum of its growth. It has not increased since then.

The scope of the work of this society is very broad, covering the entire field of railway surgery, and it aims to interest and associate every railway surgeon. It has held annual meetings in May of each year. It has made large contributions to the literature of railway surgery, and has published a journal which was for all the earlier years, under the editorship of Prof. R. Harvey Reed, then the treasurer of the organization.

Perhaps the most active and influential man in this body is and has been Wm. B. Outten, M. D., Chief Surgeon of the Missouri Pacific railway system, of St. Louis, Mo. He was president for one term, and on the retirement of R. Harvey Reed, M. D., became the editor of the journal, now called the "Railway Surgeon," a position which he held until recently. The officers for the current year are as follows:

President, A. I. Bouffler, Chicago; treasurer, E. R. Lewis, Kansas City, Mo.; Secretary, Louis J. Mitchell, 498 W. Adams St., Chicago.

In some of the states state organizations of railway surgeons have been organized and still flourish. The New York State Association of Railway Surgeons is perhaps, the most prominent of these organizations. Its officers are as given below. Dr. George Chaffee will present to your body a paper devoted to the work of this body, which will give an idea of the work of such a body in a great state like New York.

I give a list of the officers of some of the states and other societies of railway surgeons:

American Academy of Railway Surgeons—Annual meeting at St. Paul, October, 1900. T. B. Lacy, M. D., Sec.,

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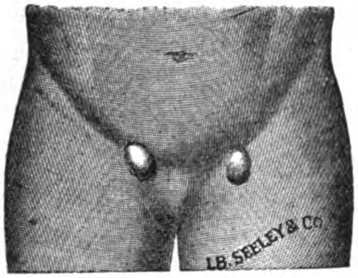

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Council Bluffs, Ia.; C. A. Wheaton, M. D., Pres., St. Paul, Minn.

Wabash Railway Surgical Association—Meeting in St. Louis, Nov., 1900. C. B. Stemen, M. D., Sec., Fort Wayne, Ind.; J. N. Jackson, Pres., Kansas City.

Florida State Associations of Railway Surgeons—W. L. Hughlett, M. D., Pres., Cocoa, Fla.; R. T. Walker, M. D., Sec., Cedar Keys, Fla. Next meeting, St. Augustine, Oct., 1900.

Santa Fe Railway Medical and Surgical Society— J. D. Freeman, M. D., Sec., Topeka, Kan.; Frank Finney, M. D., Pres., La Junta, Col. Next Meeting, Topeka, June, 1900.

Associations of Surgeons of Pennsylvania Company—Geo. C. Stemen, M. D., Sec., Fort Wayne, Ind.; Jos. F. Hobson, M. D., Prest., Cleveland, O.

Air Line Railway Surgeons' Association—R. S. Anderson, M. D., Pres., Princeton, Ind.; J. W. McGowan, M. D., Sec., Oakland City, Ind.

Western New York and Pennsylvania —E. M. Dooley, M. D., Sec., Buffalo, N. Y.; Geo. E. Ellis, M. D., Dunkirk, N. Y. Next meeting, Dunkirk, N. Y.

Surgeons of Cincinnati Northern Railroad—J. L. Stager, M. D., Sec., Paulding, O; W. H. Matchett, M. D., Pres., Greenville, Ohio.

New York State Association Railway Surgeons—C. B. Herrick, M. D., Sec., Troy., N. Y.; J. L. Eddy, Pres., Olean, N. Y.

Baltimore and Ohio Association of Railway Surgeons—L. H. Ball, M. D., Sec. Faulkland, Del.; Robt. J. Reed, M. D., Pres., Wheeling, W. Va.

Big Four Surgeons' Association—T. C. Kennedy, M. D., Sec., Shelbyville, Ind.; G. W. H. Kemper, M. D., Pres., Muncie, Ind.

Association of Erie Railroad Surgeons —W. W. Apley, M. D., Sec., Cochecton, N. Y.; C. S. Parkhill, M. D., Pres., Hornellsville, N. Y.

Iowa State Association Railway Surgeons—I. K. Gardner, M. D., Sec.; New Hampton, Iowa; N. C. Morse, M. D., Pres., Eldora, Iowa.

C. M. and St. P. Railway Surgical Association—A. I. Bouffleur, M. D., Chair man Executive Committee, Chicago, Ill.

Texas Association Railway Surgeons —Clay Johnson, M. D., Sec., Corsicana, Tex.; L. B. Gunby, M. D., Pres., Sherman, Tex.

Association of Central of Georgia Railway Surgeons—Dr. W. H. Elliott, Pres., Savannah., Ga.; Dr. Howard J. Williams, Sec., and Treas., Macon, Ga.

Surgeons of Lehigh Valley Railroad J. G. Zern, M. D., Sec., Lehighton, Pa.; C. H. Ott, M. D., Prest., Sayre, Pa. Next meeting, New York city, 1900.—Medico Legal Journal.

## THE REMEDY FOR THE GRIPPE.

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The most serious complications of the grip are the bronchial and pulmonary inflammations. They are far more serious and fatal when complicated with this disease and immediately following it under other conditions.

The reason for this is that the patient's vitality is so reduced by the principal disease that he is not able to resist the inflammatory process of pneumonia or bronchitis, or to throw off the exudates. Thus a localized pulmonary lesion, which he would ordinarily be able to control, is, on account of his feeble vitality, allowed to extend, or the tissues break down, forming an abscess, in either case frequently with fatal termination.

The most important indication for treatment in such cases is to sustain the vitality of the patient, whatever else is done to relieve the immediate and variable symptoms. The chemically pure hypophosphites of lime and soda will be found to be the very best agent for this purpose. It stimulates the rapid renewal of the worn-out tissue cells, giving vigor and sustaining power to the system. This it does, not by whipping up the tired nerves, but by nourishing them.

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Harvard University was founded in 1638; William and Mary in Virginia in 1693; Yale in 1701; the College of New Jersey in 1746, the University of Pensylvania in 1753; King's College (Columbia) 1754; Rhode Island College (Brown University) 1764.

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### ALWAYS READY.

Before the physician who uses the old-fashioned hypodermic syringe has prepared and filled the instrument for hypodermic use, the sufferer from diphtheria may die. Quickness of action is an essential in this case. The Special Diphtheritic Antitoxin put up by Frederick Stearns & Co., Detroit, requires no such delay in its application. The bulb becomes a syringe and perfect asepsis is assured.

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Frederick Stearns & Co., Detroit, Mich., have commenced the publication of a bi-monthly called The Trio, calculated to cover Therapy, Pharmacy and Biology. The first number which appeared for November and December, 1900, was an interesting and valuable number.

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### FUNDAMENTAL PATHOLOGICAL ULTIMATES.

As a foundation for rational therapy in gout and rheumatism it must be borne in mind that in these disturbances we have to deal with a faulty condition of metabolism as the underlying cause and symptoms vary as to the tissue or organ affected; defective elimination is an important factor in both; the skin, digestive organs and kidneys being at fault. These ultimate facts can be controlled by the mixed treatment suggested in the formula of tri-iodides, Henry, which contain all the constituents required as an eliminant.—Medical Essays.

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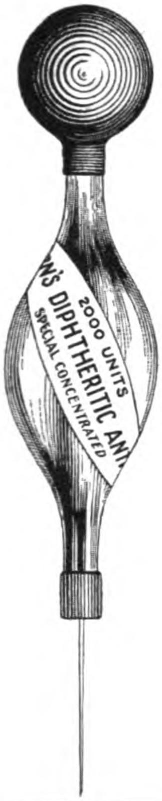

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# MEDICAL DIAL

A Monthly Record of Medicine and Surgery.

VOL. III.
No. 3.

MINNEAPOLIS, MARCH, 1901.

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In attempting to cover the mining field, especially that of "metal" mining, it is the earnest hope of the writer hereof to make of METAL MINER a magazine that will be accepted as an authority and worthy of appreciation by all parties who may be in any way interested in mining, whether owners of mines or mining stock, operators in their respective fields, or producers of the many necessities and conveniences required in prospecting for mineral wealth and to carry on the work of mining and extracting the pure metals from their native ores. Not only is it the wish to make it valuable to all who are connected with mining industries, but it is also the desire to present to the thousands of capitalists of this country who may not now have an inclination, or who may have an aversion to enter this legitimate field of enterprise, a part of the facts in connection with the subject in such a way as to convince them that mining is as safe in the long run as any other business.

To successfully carry out this two-fold object it is admitted will require considerable attention to detail and an amazing amount of labor in the matter of gathering the required information for the reading columns of this magazine, but it can be done, and why should it not be accomplished right here in Minneapolis—one of the Twin Cities of Minnesota—as well as anywhere else. This great financial center is the home of thousands of capitalists who are already interested in mines, and the accessory industries are fairly well represented. It is in reality the mining center of a vast section of North America, and is recognized as such in the many camps of quite a number of states. Not only is it the headquarters for gold and silver mining of the Northwestern section, but it is also the real metropolis of the colossal iron and copper producing fields of the Superior regions of Minnesota, Wisconsin, Michigan and Canada. Here is the true "Mecca" to which the moving spirits must annually, semi-annually, monthly and daily migrate in order to keep in touch with contemplated movements and put into action new enterprises requiring intelligent planning or capital. Twin-City oracles—and they are many—must be consulted in order to succeed.

To assume to become the spokesman for such a large body of intelligent and active men as are interested in mining industries necessitates a courage greater than this writer possesses, and to be such in fact requires a genius beyond his reach, but to offer his humble services to further the interests involved is something that any person has a right to propose to do, and that much responsibility is assumed.

With these few remarks METAL MINER may be considered as fully launched on the sea of trade journalism.

Very truly,
E. EDGAR GRISWOLD.

Arrangements have been made to club METAL MINER with the MEDICAL DIAL. Both magazines will be served to new subscribers for the balance of the present year for $1.00. Regular subscribers to the MEDICAL DIAL may secure METAL MINER until January 1, 1902, for 50 cents. Make remittances payable to either periodical, or send 1 or 2 cent stamps.

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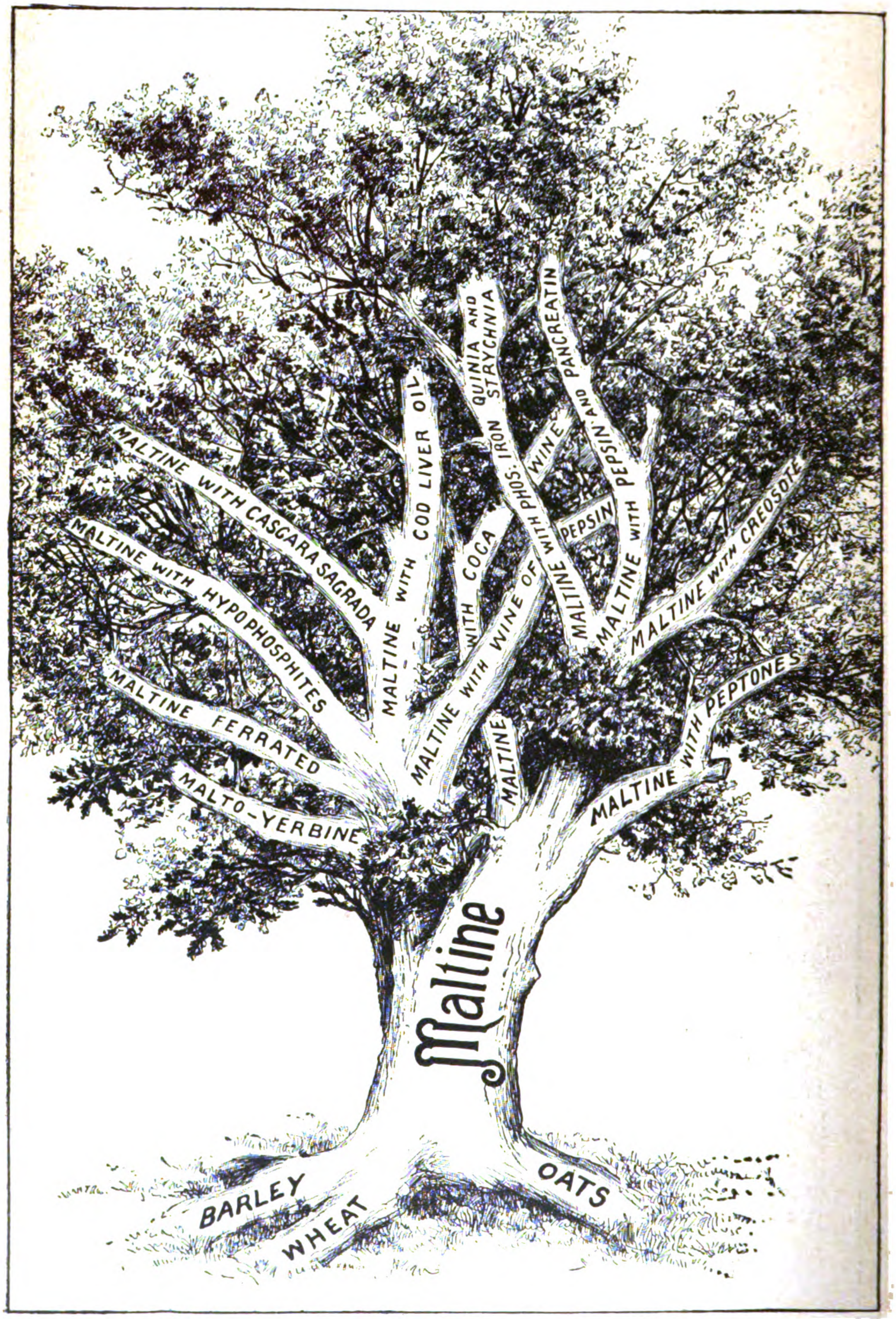
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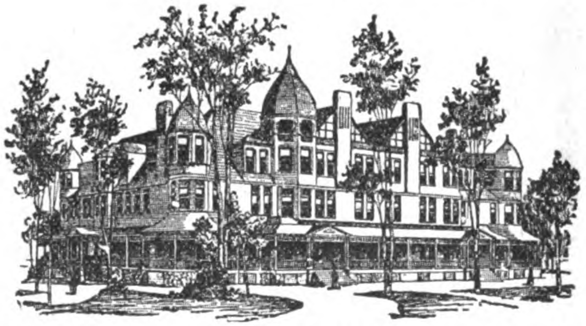

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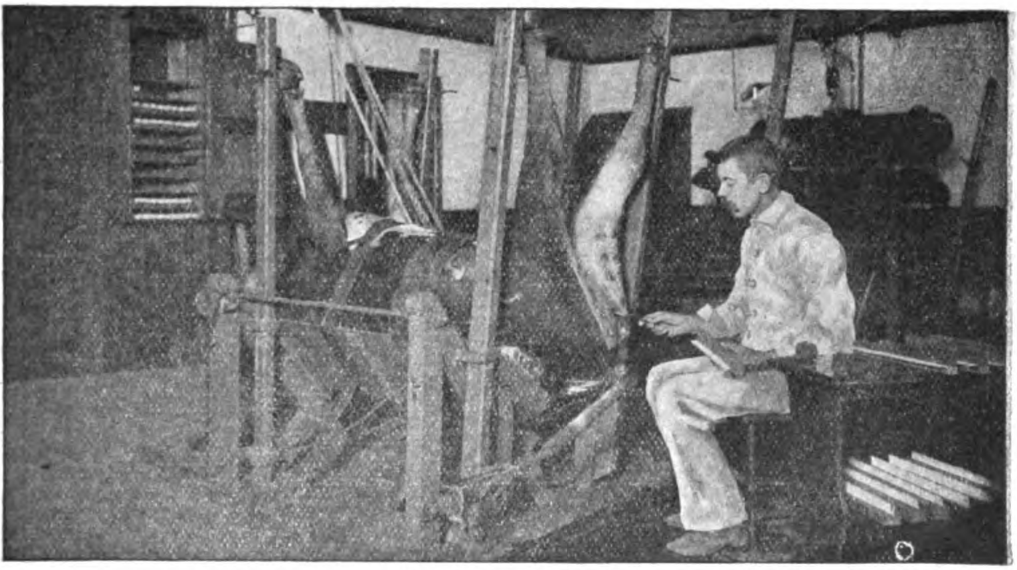

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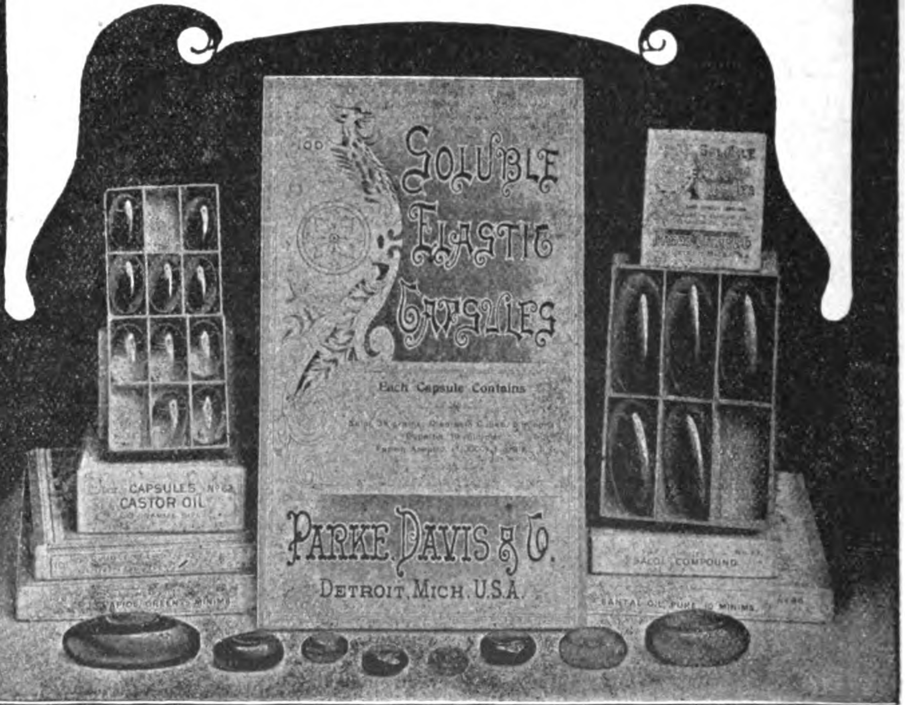
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# MEDICAL DIAL

A Monthly Record of Medicine and Surgery.

Vol. III. MINNEAPOLIS, MARCH, 1901. No. 3.

## Original Articles.

### *HEREDITY FROM A MEDICAL STANDPOINT AND THE NECESSITY OF ITS RECOGNITION BY THE PUBLIC.

BY CHESTER M. CARLAW, M. D., MINNEAPOLIS

By heredity is meant that special property of living organisms whereby their characters, qualities and tendencies are transmitted to their offspring throughout successive generations.

Men are much alike, but each individual differs in some respects from every other individual who now exists, or, it may be confidently assumed, ever has existed, or ever will exist, and this is not a difference which is due to education or circumstances, but a fundamental difference of nature which neither education nor circumstances can eradicate. Let two persons be placed from birth under the same conditions and subjected to the same training, and they will not, in the end, have the same pattern and capacity of mind any more than they will have the same pattern of face. Each is under the dominion of the natural law of the evolution of the antecedents, of which he is the consequent, and can no more become the other than an oak tree could become an elm if their germs were planted in the same soil, warmed by the same sun and watered by the same showers. There is a destiny made for man by his ancestors, and no one can elude, were he able to attempt it, the tyranny of his organization.

The power of hereditary influences in determining an individuals nature has been known to all ages. It was recognized by the Grecians, as indicated by the following passage from the Religio Medici:"Bless not thyself only that thou wert born in Athens; but among thy multiplied acknowledgements, lift up one hand to heaven, that thou wert born of honest parents, that modesty, humility and veracity, lay in the same egg and came into the world with thee. From such foundation thou may'st be happy in a virtuous precocity, and make an early and long walk in goodness. So may'st thou more naturally feel the contrariety of vice unto nature, and resist some by the antidote of thy temper."

#### THEORY OF HEREDITY.

In every age and country where science has flourished, men have devoted their lives to this subject, and have felt that their hard earned results could scarcely be called a beginning, so vast is the field, so many are the phenomena, that the province of natural science is practically infinite; for each animal and each plant presents special problems which open in all directions before the student in an endless vista. It is needless, then, to say that all theories of heredity are as yet imperfect, however, the scientific mind is not satisfied with the statement that this is so because it is "natural." It seeks for explanation and for a knowledge of the methods by which it is brought about. We will simply mention four theories: the first two as expressing the older views and the last two as expressing the more modern views:

1. Democritus was one of the first to offer a theory, which he did about the year 400 B. C., during the life time of Hypocrates, the father of medicine. He claimed that all parts of the body contribute to the "seed," and, as a result, the offspring is similar to the parent.

2. Bounet and Haller, during the

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*Read before the State Educational Association at St. Paul, December 27, 1900, and, by request, before the Presbyterian Ministers' Association at Westminster church, Minneapolis, January 21, 1601.

18th century, advanced what is known as the "preformation theory," by which it was held that in the egg or spermatozoön, was contained a minute but perfect repetition of the parent, and that the subsequent development of the embryo was but the expansion or evolution of the germ.

3. During the latter half of the 19th century, several theories were advanced to account for heredity. Among these were "Spencer's theory of Physciological Units" and "Darwin's theory of Pangenesis." These two theories resemble each other. The theory of Charles Darwin, which he advanced in the year 1868, is that minute particles, which he called "germules," are constantly thrown off from every cell of the body, not only in the adult but in every stage of growth; and that these germules retain the impressions, not only of the cells from which they come, but of the various conditions to which they have been exposed. These germules circulate freely through the system and by their union are formed the sexual elements (generative cells), which are thus able to produce all of the peculiarities of the original organism.

4. In 1883 Prof. Aug. Weismann advanced a new theory of heredity, differing in almost every particular from its predecessors. He claims that inheritance takes place through the germ cells. The peculiar substance in these cells, known as chromatin or chromoplasm, so-called from its property of taking up the coloring matter of certain staining fluids, forms an essential part of the nucleus of all cells of both animals and plants. With the impregnation of the egg, there is a union of the chromatin of the male and female cells to form nuclear material for the germ cells which are about to develop. The germ plasm derived from both parents is not all used in the construction or formation of the nuclein of the cells forming the personal structure of the individual, but is set aside in the system, unchanged, for the formation of the germ cells of the succeeding generation.

According to this theory there is a direct continuity of germ-plasm from one generation to the other, which germplasm acts as a conveyor of hereditary characters, hence there can, according to this theory, be no inheritance of the ted from one generation to another, un- so-called "acquired characters," because such influences are not brought about until during the growth or in adult life, which is after the separation of these germ cells or plasma from the other cells of the body, therefore, there is no conceivable way in which this germ-plasm can participate in these modifications. In other words, the germ-plasm is transmit- influenced by the conditions of life in which the individual is placed, except in so far as they may be affected by conditions of growth and nutrition.

The Weismann theory seems to be particularly weak, inasmuch as it does not admit the influence of extrinsic conditions on heredity, of which we undoubtedly have many examples. "Habit becomes second nature" is an old saying, or, as Shakespeare has it, "Use, long continued, is what builds up our nature." Darwin says: "Characters of all kinds, whether old or new, tend to be inherited." There can be little doubt but that the clear financial insight of the Hebrew has been developed by ages of habit. Again, the transmission of acquired character is well exemplified in some of the inferior animals, as the dog. We know that all varieties of dogs have been derived from a common stock, although they are now so widely separated physically and mentally. Each one by a certain mode of life has become modified from the original type. The well-bred pointer, that is, one whose ancestors have been trained to the same particular duties for many generations back, will "point," as we say, by instinct. The sheep-dog will take to "tending the flock," almost of his own accord. The offspring have not inherited any part of the education of their ancestors, but they have inherited their organization as modified by their peculiar mode of life; in other words, they have inherited a strong predisposition towards the ways of their progenitors. Just so does a child inherit a strong predisposition to the ways of its ancestors, be these good or evil. We might as well expect to find the qualities of the sheep-dog in the terrior, or those of the greyhound in the bulldog, as to expect to find the modesty, gentleness and tenderness of nature which stamps the daughter of the family noted for these virtues for generations, in the daughter of the coster-monger. Likewise we find peculiarities of mind, temper, thought, habit, volition, etc., appearing and re-appearing in families and races.

Deviations from the normal type are due to the influences of the environment affecting function, and function affecting structure, and the changed structure and function inherited and integrated through successive generations. Thus will the continuance of the influences of environment, create, modify or extinguish physical characters according to the nature of the environment. Advantage is taken of this law by breeders of domestic animals to improve and preserve the purity of choice breeds for valuable qualities, such as speed and strength in horses; dairy qualities in cattle; early maturity in swine; quality of wool in sheep. In poultry it is possible to so far deviate from the natural type in color of plumage and general shape as to form a new breed, which can be so perfected in years of breeding as to remain permanent.

## HEREDITY IN DISEASE.

The progress of our knowledge in pathology during the past few years constrains us to curtail the boundary of the hereditary diseases, and, in fact, to look upon this subject in an entirely different light as a causative factor in disease. Take consumption as an illustration. In years gone by it was thought to be due to something directly transmitted from parent to offspring, in whose body this peculiar something remained latent or inactive for a number of years, then made its appearance and destroyed its possesor. We now know such a postulate to be incorrect. It is not the actual disease that is carried over to the progeny, but rather a peculiar type of conformation in which the tissues are rendered more vulnerable to, and less capable of resisting, infection. The disease itself is due to a specific germ—tubercle bacillus of Koch. It is only a tissue-soil favoring the development of consumption that is inherited, except in very rare cases. What this peculiarity of soil or predisposition is cannot be explained in our present state of knowledge. There are numbers of instances of individuals of tuberculous parentage, passing through life without a sign of the disease when removed from sources of direct infection. Bernheim reports a case of a family of seven children in which both father and mother were tuberculous. The second and fifth child had never lived with the family. The children who lived with their parents died of tuberculosis, the other two remained healthy and had healthy children of their own.

What we have said with regard to inheritance in connection with tuberculosis explains the relation of heredity in other diseases, such as rheumatism, gout cancer, asthma, hay-fever, insanity, hysteria, migraine (sick-headache), goitre, etc. It is not the disease, but only the predisposition to such disease that is inherited, the co-operation of an exciting cause being necessary to produce the disease. Some diseases, however, are directly inherited, as syphilis, hemophilia (an abnormal tendency to hemorrhage), errors of refraction of the eye (long and short sight), color-blindness, and certain skin and nervous diseases, physical deformities, as harelip, clubfoot, cleft palate, etc.

Individuals with acquired degenerate conditions may undoubtedly be capable of transmitting to their offspring a predisposition to such degenerations. Bad hygienic conditions, as filth, poverty, starvation, overwork in ill-ventilated rooms, want of pure and wholesome food, are important factors in producing degeneration. The acquired ailment of the parent becomes the inborn infirmity of the offspring. In fact, disease is foreign to nature: it is an acquired character. As an illustration, let us imagine twin brothers who have entered the world as like as possible. Send one of these infants to a farm home to be brought up, and let the other be reared in the slums of a great city, in the midst of poverty and vice; and what will be the result? The one who breathes the pure air, feeds on plain but wholesome food, and does an honest day's work every day,—will reach manhood full of health and strength, while his brother, bred in the lanes of a great city, seldom, if ever, breathing pure air, and fed on food wanting in many of the essential constituents of a wholesome diet, will arrive at manhood, should he reach that stage, a physical degenerate, no more like his twin-brother in the country than Hamlet was like Hercules. Here we see the effects of environment upon the physical life, and no more proof is needed to understand that its effect upon the mental and moral nature is equally powerful. As the physical health can be developed and preserved only by good habits, nutritious food, pure air and exercise, so the mental faculties can be enlarged and brightened only by education and example. Hence, "Heredity and environment are the masterpieces of the organic world; they have made all of us what we are."

Fortunately, nature has a wise provision in tending to "throw back," or, as it is called, "reversion," to the normal. That is, if one parent be perfectly healthy and from a healthy family, while the other parent is unhealthy and from degenerate stock, a reversion to the healthy will, in all probability, occur in some of the children at least. On the other hand, if both parents are degenerates of the same or different varieties of degeneration and from degenerate families, their offspring must necessarily retain their parents' peculiar characters, and when these characters become extreme, the stock dies out and the family becomes extinct—an example of the "survival of the fittest."

## INFLUENCE IN NERVOUS DISEASES.

There is no class of disease where the predisposition is so surely transmitted from parent to child as the nervous. Various forms of nervous diseases may occur in the same family as a result of disease of the nervous matter in the parents. One child may suffer from epilepsy, another from insanity, another from eccentricity or delusions, etc. In an analysis of 1450 cases of epilepsy, Gowers found a family history of epilepsy in two-thirds, of insanity in one-third and of both in one-tenth of the cases. Neurasthenia (nervous exhaustion), hysteria and chorea (St. Vitus's Dance) in ancestors are often fore-runners of epilepsy in the descendants.

## INFLUENCE IN MENTAL DISEASES.

As the mental constitution in general is invariably reproduced in the offspring, the hereditary tendency in mental disease is more familiar and better demonstrated than in other forms of morbid action. The statistics of heredity in mental infirmities vary from 30 to 90 per cent, according to race and locality. The mental disposition of the parent may not be shown in the son or daughter, but may recur in the third generation (atavism). Clouston, who has very thoroughly investigated this field, finds that practically every typical case of insanity has in his or her ancestry, immediate or collateral, one of the following six neuroses, occurring in frequency in the order named:

1. Insanity.
2. Neurotic Instability.
3. Alcoholism.
4. Epilepsy.
5. Congenital disease of the nervous system.
6. Imbecility or idiocy.

Heredity and alcoholism are so closely related as causative factors in mental infirmities that it is almost impossible to separate them. Pronounced alcoholism in the parents nearly always means examples of mental disease or weak-mindedness in the children. The first children in such a family are, as a rule, mentally sound. As the parents advance in age and continue the alcoholic habit, the succeeding children are more and more mentally unsound, and, if the family is a large one, the last born children are not uncommonly imbeciles or idiots. Fortunately, the children of such parents frequently die young. Marce reports a case of a drunkard who had sixteen children, fifteen of whom died at an early age, while the one that grew up was an epileptic. Darwin states that the families of drunkards do not descend beyond the fourth generation. According to Morel the plan of decadence is as follows: In the first generation there are moral depravity and alcoholic excesses; in the second, drunkeness and maniacal outbursts; in the third, melancholia, hypochrondria and impulsive ideas, particularly those of murder; in the fourth, the imbeciles and idiots appear and the family becomes extinct. The majority of idiots and imbeciles are the results of drunken and otherwise vicious parents. Dr. Howe found that 50 per cent of all the idiots in Massachusetts were the children of chronic drunkards.

Perhaps the propensity to suicide is more certainly transmitted from parent to child than any other mental disease. Dr. Hammond, of New York, reports its occurrence in several members of a family at about the same age, and all used the same means and place to destroy life. A gentleman of means, with a slight hereditary tendency to insanity, killed himself in the thirty-fifth year of his age by cutting his throat while in a bath tub. He left two sons and a daughter. The eldest son, when he had reached thirty-five years of age, cut his throat while in a bath tub, but was rescued before life was extinct. The second son succeeded in killing himself at the same age and in the same way. The daughter married and bore one son. At the age of thirty-four years, she was found dead in a bath tub with her throat cut. Her son at the age of twenty-seven years attempted to kill himself by cutting his throat while in a bath tub, but was rescued. Again at the age of thirty years he made a similar unsuccessful attempt. Fnally, a year later, he was found in his bath tub with his throat cut from ear to ear.

### HEREDITY AND ALCOHOLISM.

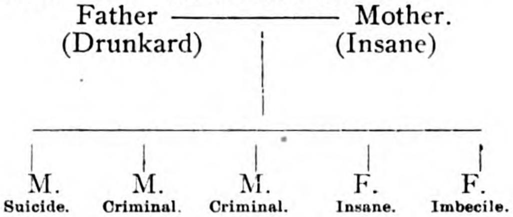
Dr. Maudsley, in his excellent manual on "Responsibility in Mental Disease," says: "Here, as elsewhere in nature, like produces like, and the parent who makes himself a temporary lunatic or idiot by his degrading vice, propagates his kind in procreation and entails on his children the curse of the most helpless fate."

Clouston, in his book on mental diseases, says: "After men have used alcohol until they become dipsomaniacs, that is, having acquired an uncontrollable desire for spirituous liquors, in the present state of the law that does not allow legal interference with their liberty—I say it with deliberation—the sooner they drink themselves to death the better. They are a curse to all who have to do with them, a nuisance and a danger to society, and propagators of a bad breed."

Drunkeness is perhaps too often looked upon as purely a vice acquired by the individual. In many cases this is true, but 60 per cent or more have inherited from their ancestors an abnormal condition of their nervous system, of which habitual drunkeness is the outward sign. Their unstable nervous system renders them liable at any time to fall victims to this habit under provocations which would be powerless for evil upon a stable nervous system. If the drunkeness be in the mother the degenerated nervous system is much more liable to be transmitted to the offspring.

### INFLUENCE OF HEREDITY ON CRIME.

Dr. Lombroso says that we must look upon the criminal as a product of anomalous biological conditions as well as adverse social circumstances. He is only a branch of a decadent stem. In the New York State reformatory 12 per cent of the inmates were descended from insane or epileptic parents, and 38 per cent were the children of drunken parents. The instinctive criminal may be looked upon as a moral imbecile. He lacks moral sense, as the idiot lacks the intellectual. Personally they bear a strong family likeness to their near relatives, the idiots. They both spring from like parents. Drunkeness is one of the most fruitful sources of instinctive criminality. The following family tree as given by Dr. H. Maudsley in the Journal of Mental Science will illustrate the origin and relation to other forms of nervous degeneration that the criminal bears.



Again, the children of immature parentage, or of parents far advanced in years, are largely represented among thieves as well as idiots and imbeciles.

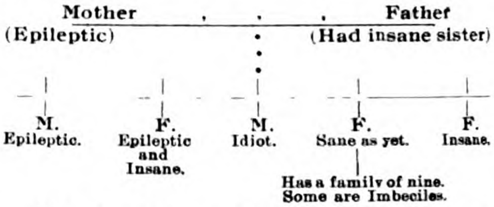
### IMPORTANCE OF HEREDITY.

The importance of the laws of heredity cannot be overestimated. To the thoughtful observer it is simply distressing to see educated men and women who have reached the years where good judgment should prevail, or, in other words, where the "head should rule the heart," so completely and selfishly ignore the laws of heredity, and consider nothing except the curve of the lip or the eyebrow, the size of the pocket-book, or the social standing, as the only attributes to marriage. The physical, mental and even the moral powers are utterly in the background, and do not receive even a passing thought. So long as such willful, cruel and selfish stupidity continues among men and women in matrimonial matters, so long shall the unfit be begotten, and immense avoidable suffering continue in the world as "the sins of the fathers and mothers are visited upon the innocent children."

We look upon disease as cruel which tears the innocent child from the mother's breast, or lays the young father or mother cold in death. With eyes blinded with tears for those we love it is sometimes very difficult for us to see in all this the hand of a kind and merciful Providence. But if we contrast the brief suffering of the dear ones we have lost with the lifelong agonies of many of the insane, we must rejoice and say in truth, that death has been "cruel only to be kind," for rather a thousand times the quiet forgetfulness of the tomb, than the lifelong battles of the chronic maniac, the imaginary but no less torturing hell in which the melancholiac exists. Imagine the agonies of the young wife, but yesterday full of life and hope, whose life companion has been dragged shrieking from her side leaving her wedded, yet widowed, she and her young children a charge upon the cold world, or perhaps colder relatives. The only legacy he has left behind is a tainted nervous system to his children, that will in all probability enable some of them to join him in the asylum before he dies.

Strachan says: "The person, man or woman, who has had an epileptic, choreic, idiotic, or imbecile brother or sister, an insane uncle, aunt or parent, or even grandparent, should never for a moment permit himself or herself to look upon a member of any neurotic family—that is, one in which insanity, epilepsy, habitual drunkenness, suicide or imbecility, has at any time appeared—as a probable or even possible partner in marriage; for, although the disease has appeared in but one or two members of the family, it shows that the tendency is there, and the chances of the children not inheriting neurotic disease from such a union will be very slight. Probably idiocy, imbecility, epilepsy, chorea, drunkeness, crime, suicide or insanity will make its appearance in the degenerate offspring."

The following is a family tree of one of his own patients, and shows the effect of a double parental taint upon the children.



The important relation of heredity to alcoholism has not until very recently been recognized by law. Legislatures now recognize habitual drunkenness as a diseased condition, and have made certain laws for the care and treatment of those so affected. Yet, after all, these unfortunate creatures are still misunderstood, and, when their inborn vice leads them into trouble, they are brought before a court of justice or injustice, and punished, which, as might be expected, seldom does any good. These creatures are as helpless to fight against the desire for drink as is the hereditary suicide to fight against the fate which impels him to destroy his life, and their punishment is neither just nor beneficial.

What shall we say of the importance of heredity in crime?

The citizens of this country spend annually upwards of sixty million dollars on judiciary, police, prisons and reformatories. In Great Britain the annual expenditure in connection with crime amounts to at least ten millions sterling. For such a tremendous financial drain we should expect a diminution in the amount of crime, but, instead, we are getting the opposite. Gen. Brinkerhoff, president of the National Prison Congress of the United States, has made the following statement: "Other questions which agitate the public and divide parties are doubtless important. The country can live and prosper under free trade or protection, under bimetallism or monometallism, under democracy or republicanism, but it cannot survive a demoralized people with crime in the ascendant. That crime is on the increase out of proportion to the population is indicated by the United States census, which is as follows:

In the year 1850 the ratio to population was 1 in 3442.
In the year 1860 the ratio to population was 1 in 1647.
In the year 1870 the ratio to population was 1 in 1171.
In the year 1880 the ratio to population was 1 in 855.
In the year 1890 the ratio to population was 1 in 757.

Dr. Maudsley says: "It is certain that lunatics and criminals are as much manufactured articles as are steam engines and calico-printing machines. They are neither accidents nor anomalies in the universe, but come by law and testify to causality." G. L. Chesterton, in his book "Revelations of Prison Life," makes this statement: "The sad realities which I have contemplated compel me to aver, that at least nine-tenths of habitual depredators have no desire or intention to forsake their guilty course. They love the vices in which they have revelled." On one occasion he heard a youth exclaim: "Lord, how I do love thieving; if I had thousands I would still be a thief." Lombroso asserts that the perversity of the mind of a criminal is more fertile in new crimes than the imagination of a judge in new punishments.

## REMEDY.

At present the public know little of the law of hereditary transmission as applicable to themselves. Few appear to give a moment's thought as to what may be the physical, moral or mental inheritance of their children. Attempts at interfering with the instincts of man have not been awarded with a very satisfactory record. In fact when two people are mixed up in a love affair interference on mere trifling matters by an outsider usually means a fistic encounter and to attack either person from a physical standpoint would in all probability cause the good Samaritan to gaze down the glistening barrel of a gun. To suggest an interview with the family physician for advice would bring out a preference to consult a fortune teller.

What then can be done?

In my mind nothing would be so effectual as to impress upon the minds of our boys and girls in the schools, the fact that this law of hereditary transmission applies to all nature's creatures. Teach them the general law of heredity and its importance to the human race, and so impress them with a lively sense of the terrible responsibilty resting upon those bearing a brand of unfitness to continue their kind, bringing into the world immense suffering which would never have existed had they exercised discretion and self-denial. Of course, in spite of all such teaching, many will ignore our most earnest warnings, but, even so, the truth should be proclaimed and taught. It will surely have some reward by causing at least a few to halt and consider this important matter at the proper time.

How far the present state of affairs should be allowed to go before the arm of the law interferes is a question. At present only the idiot and the actual insane, who are in the eyes of the law unable to make a contract binding on themselves, are prevented from marrying. Otherwise, there is no one so diseased, crippled or deformed, that he or she may not marry and become the parent of a suffering, helpless family so far as the law is concerned. Even if, during a "lucid interval," a lunatic contracts a marriage, it is valid. As long as there are no proper legislative enactments regarding the intermarriage of persons tainted by serious disease, either acquired and actually present, or an unquestionable predisposition to the same, so long will children be begotten by the thousands every year, with pedigrees which would condemn many of the lower animals to the millpond. Heredity is a law from which there is no escape. The idiot, the imbecile, the the neurotic, the epileptic and the insane are not mere accidents, nor is the dipsomaniac and the irreclaimable criminal an unaccountable causality.

Strachan says: "All men and women who have been insane once and have a bad family history, those who have been twice insane, even if the family history be good, and all who are confirmed epileptics or drunkards should be prevented by the state from becoming parents, for they have no greater right to carry suffering and contamination amongst the people and throw expense upon the state, than has the person suffering from smallpox to do so by travelling in a public conveyance."

Do not be of the opinion that all people in poor health should refrain from marriage. Many persons, through a series of adverse circumstances, unwholesome environment, etc., are reduced in health, perhaps far below the normal, yet they have a good family history, and to refrain from marriage on the score of ill-health is not at all necessary. Indeed the majority of such people, when their marriage brings better circumstances, rapidly improve in health. If they are neurotic, they should marry the level-headed, with strong mental and nervous power; if feeble, they should choose the robust.

Physical laws rule in the material universe, and as long as our happiness and well-being here depend upon their proper administration, let us seek to understand their operation. To excuse ourselves on the hypothesis of the Christian Scientist, that sin, sickness and even death are built on a mound of sand, and that when the storms of righteousness and truth descend, they will fade away as they have no foundation, will be to increase our physical sufferings and further degenerate our race. We must not forget that God helps those who help themselves, nor must we refuse to understand that Providence has established benign laws for the government of His creatures. To believe that He will stay these laws in answer to prayers is a delusion, and a very prevalent one to-day. Prayers are useful, but they do not influence the laws governing material forces. A single anecdote will serve to illustrate: "Some years ago, two ships set sail from Liverpool, for the South Sea islands. The one was secretly built for a pirate craft and manned by pirates. The other was filled with missionaries. The one on a voyage of pillage and murder, the other on a mission of mercy with tidings of Heaven. The pirates had constructed their vessel in the best possible manner. The missionary ship was an old merchantman and in many points unseaworthy. As they neared the equator, a furious storm arose in which the missionary ship went to pieces, with the loss of all on board. The pirate vessel, however, proudly and bravely rode through the storm and came out wholly unharmed. The lesson here is self-evident. The missionaries in spite of their prayers were punished for the law of safety which they violated, while the pirates obeyed the law and were saved."

## *EARLY AMERICAN MEDICINE.

By James Moores Ball, M.D., St. Louis, Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons; Ophthalmologist to St. Joseph's Ophthalmic and Surgical Sanatorium.

(St. Louis Med. and Surg. Jour.)

The first physicians in the New World were Spaniards who settled in the City of Mexico. Here, in 1578, a chair of medicine was established in the University of Mexico, which had been founded for a quarter of a century. The professor was expected to lecture daily and was able to cover the subject in a four years' course. Students of medicine were required to know Latin and to obtain the degree of Bachelor of Arts. In 1661 chairs of anatomy, surgery, and methodus medendi were added; and later the course was further improved by the addition of practical anatomy and operative surgery. At the end of the course the candidate acquired the degree of Bachelor of Medicine. In 1768 a Royal College of Surgeons was established on the plan of similar institutions in Cadiz and Barcelona. In this a lower kind of practitioners was instructed, called "Romancist surgeons" to distinguish them from the "Latin surgeons" who studied in the University. Among those who attended the lower college were the midwives, bone-setters, bleeders and dentists. At a later period the standard for admission was raised, and in 1830 it was enacted that no one should be admitted to study surgery who did not know Latin, and the next year the two branches of the profession were united.

The history of medicine in what is now the United States began with the English settlements at Jamestown and Plymouth, and the Dutch at Manhattan Island. Dr. Thomas Wooton, Surgeon-

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*Being the Address of the Retiring President of the St. Louis Academy of Medical and Surgical Sciences. Delivered November 20, 1900.

General of the London Company, came to Jamestown, Virginia, in May, 1607. The next year Dr. Walter Russell accompanied Captain John Smith in his expedition around Chesapeake Bay and the Potomac, and the same year Anthony Bagnall was surgeon to the fort at Jamestown. The life of these disciples of Æsculapius was far from monotonous. Wooton was obliged to live for a time upon crabs and fish obtained from the James River, and Bagnall while visiting a patient received an arrow through his hat. Probably these gentlemen remained in the wilds of America for only a short period; for the next year, 1609, history records that the valiant Captain Smith was obliged to go back to England for surgical treatment. In 1610 Dr. Lawrence Bohun, who graduated in Holland, came to Virginia, whence he was called to the West Indies by the serious illness of Lord Delaware, and unfortunately was killed in a naval battle with the Spanish. So far the medical men of the new colony had been transients, but soon the arrival of Dr. John Pot gave Virginia her first permanent physician. Pot was evidently a man of force and influence, since he became temporary governor in 1628.

The earliest names mentioned of medical men in the New Netherlands, as the Dutch called Manhattan Island, are those of two ships' surgeons, Hermann Mynderts van de Bogaerdet in 1631, and William Deeping in 1633. The first permanent medical settler was Dr. Johannes Montagne, a Hugenot of ability. The next year two Dutch surgeons—Gerrit Schult and Hans Kiersten—came with Keift, the Director-General of the New Netherlands. Other prominent doctors located in and around what is now New York City.

The first physician in New England was Dr. Samuel Fuller, who came to Plymouth in the Mayflower in 1620. He practiced among the colonists until his death, in 1633. In the seventeenth century there were several eminent physicians in Massachustts—Dr. Giles Firmin and Dr. William Gager in Boston; Dr. John Fisk in Cambridge; Dr. Matthew Fuller of Plymouth; Thomas Starrs of Yarmouth, and Samuel Seabury of Duxbury, both surgeons.

Many of the early physicians of this country were educated in theology as well as in medicine and surgery. It was a man of this class, Thomas Thacher, who published in 1677 the first contribution to medical literature in America, under the title: "Brief Rule to Guide the Common People of New England How to Order Themselves and Theirs in the Small-Pocks, or Measles." This was a poster in double column, printed in Boston by John Foster. It appeared thirty-six years after the first printing press was set up in Cambridge and three years after the first press was introduced into Boston. It preceded the first newspaper by thirteen years, and the first permanent newspaper by more than a quarter of a century. Thacher died in Boston in 1678. During these early days the distinction between physicians and surgeons was observed in England, but was soon obliterated in America, owing to the exigencies of new surroundings. The good people of Boston were not averse to executions, and their first victim was a doctress, Margaret Jones, who was charged with witchcraft and was found to have "such a malignant touch, as many persons were taken with deafness and vomiting, or other violent pains or sickness; her medicines, though harmless in themselves yet had extraordinary violent effects; that such as refused her medicines she would tell that they would never be healed, and accordingly their diseases and hurts continued with relapses against the ordinary course, and beyond the apprehension of all physicians and surgeons." It must be said to the credit of the medical profession that it took no part in the horrible delusion known as "Salem witchcraft," which ran a rapid course in 1692, and enmeshed such eminent divines as Cotton Mather and Samuel Parris.

The earliest recorded autopsy in America occurred in Maryland in 1657. The earliest medical legislation was passed by the Assembly of Maryland in 1638, empowering the county courts "to moderate the bills, rates and wages of artificers, laborers and chirurgeons, according to the most recent rate of tobacco." The next year the Assembly of Virginia passed an act empowering any person who believed himself overcharged by his physician to cause the arrest of the medical man before the court, "where the said physitian should declare upon oath the true value, worth and quantity of his druggs and medicines." The earliest attempt to regulate the practice of medicine was made in Massachusetts in 1649. This provided that "no person or persons whatsoever employed at any time about the bodyes of men, women or children, for preservation of life or health, as chirurgeons, midwives, physitians, or others, presume to exercise or put forth any act contrary to the known, approved Rules of Art in each Mystery and occupation;" and it further provides for consultation in grave cases.

The Pilgrims were sadly afflicted. Bands of hostile savages harrassed them; starvation often stared them in the face; and to add to their misery, epidemics of small-pox broke forth repeatedly between 1618 and 1764. Syphilis is said to have appeared in Boston in 1646, and was not understood until the arrival of a young surgeon from the West Indies. Yellow fever broke out in New York in 1668; in Boston in 1691 and 1693; in Philadelphia and Charleston, S. C., in 1699. Diphtheria was epidemic in Roxbury, Mass., in 1659.

## EARLY MEDICAL INSTRUCTION.

The first medical instruction in what is now the United States was given in Boston in the year 1647 by Dr. Giles Firmin, who delivered lectures on osteology, and is said to have had the first "anatomy" in the country, "which he did make and read upon very well." This physician returned to England in 1654, was ordained a minister, and died in 1697. In 1750 Dr. John Bard and Dr. Peter Middleton made the first dissection in the State of New York. Bard (1716-1799) was a native of New Jersey, practiced in Philadelphia, removed to New York in 1746, and was the first president of the Medical Society of New York in 1788. Middleton was a Scotchman, was a writer of note, and died in 1781. The first dissections in Philadelphia were made by Thomas Cadwallader, who was one of the first physicians appointed to the Pennsylvania Hospital in 1751. In the town of Newport, R. I., William Hunter, a near relative of the famous brothers, William and John, gave lectures on anatomy, the history of anatomy and comparative anatomy during 1754 and the two following years. The centers of medical instruction at that time were small in population. In 1790 Newport had less than seven thousand inhabitants; Philadelphia, forty-five thousand. There seems to have been no secrecy about early anatomical instruction, since Dr. Hunter advertised his course in the Boston papers. Such security was rudely shaken in New York, where in 1788 a riot occurred because of a suspicion that the physicians had robbed graves. The rioters destroyed property, sacked the dissecting room, and for two days defied both civil and military authorities. The medical students were sent to jail to protect their lives.

These isolated examples of medical teaching show that there was slowly growing up in the colonies a demand for a medical college. It must not be thought an extraordinary circumstance that more than a century and a half elapsed between the first colonization and the founding of the earliest medical school. The hardy pioneers of the New World were aware of the great importance of general education, and were desirous of founding institutions of learning, but with them the welfare of the church and their political economy were always first in mind. The peculiar circumstances surrounding their immigration into this country, the desperate situation in which only too often they found themselves after their arrival, and their dependence upon the physicians and surgeons whom they had brought from Europe, combined to make the establishment of a medical school unnecessary, if not impossible, during the first century of American life. In course of time, after other institutions were founded, many of the ablest young men when desirous of studying medicine crossed the Atlantic and received instruction in the great schools of London, Edinburgh and Paris. At this period the duties of physicians were most onerous, owing to the scattered condition of the settlements. It was no uncommon experience for a doctor to travel one hundred or more miles by horse or stage to perform an important operation, and as late as the middle of the eighteenth century a patient crossed to London to have a lithotomy done by Cheselden.

Among the young Americans who crossed the ocean to complete their medical education were two—William Shippen, Jr. (1736-1808) and John Morgan (1735-1789)—who were destined to go down into history as the founders of the first medical school in the United States. Both were natives of Philadelphia, both attended while abroad the lectures and dissections of the Hunters and others. Dr. Shippen arrived from Europe in 1762, and in the autumn of that year began to teach anatomy to a class of twelve students. He gave these courses of instruction unconnected with any institution; when in 1765 Dr. Morgan, who had just returned from Europe, persuaded the trustees of the College of Philadelphia to establish a medical school. The college was already a well established literary institution, having been founded in 1749. The Medical Department was organized with two professorships; the theory and practice of physic was taught by Morgan and anatomy and surgery by Shippen. The latter gave his first instruction in a room in the rear of his own office. In 1765 he began a course on midwifery for both men and women, and established a lying-in hospital at the same time. Dissection of the human body excited so much opposition in Philadelphia that this distinguished teacher felt it necessary to inform the public that he had never taken dead bodies from graveyards. In 1770, the "sailors' mob," composed of persons opposed to anatomic research, attacked Dr. Shippen's house. Regardless of the intrigues of misguided persons, the new medical school grew. In 1768 Dr. Adam Kuhn was elected professor of materia medica and botany, and in the same year Dr. Thomas Bond became professor of clinical medicine. The following year Dr. Benjamin Rush became professor of chemistry. These gentlemen continued teaching until Philadelphia was occupied by the British in 1777. In the first ten years of its history this school had twenty-eight graduates who received the degree of bachelor of medicine. In this humble manner arose what is now one of the greatest medical schools of the world—the Medical Department of the University of Pennsylvania. Surely Dr. Morgan was uttering prophetic words when he said, in his address at the commencement of the college in 1765: "Perhaps this medical institution, the first of its kind in America, though small in its beginning, may receive a constant accession of strength and annually exert new vigor."

Our second medical school arose in New York, as the medical department of Kings' (now Columbia) College, which institution had been founded in 1754. Like the College of Medicine in Philadelphia, the New York school arose from private teaching, Dr. Clossy having given lectures on anatomy privately. This school started auspiciously, having the following faculty: Middleton, theory of physic; Clossy, anatomy; Samuel Bard, practice; James Smith, chemistry and materia melica; J. V. B. Tennant, midwifery; and John Jones, surgery. Thus six of the fundamental chairs were represented, physiology being omitted for the reason that it was not sufficiently developed to deserve a separate chair. There was no chair of clinical medicine, for there was no general hospital in New York.

The third medical college was founded in Cambridge, Mass. In 1780 Dr. John Warren lectured on anatomy and two years later Harvard College established a medical school with three chairs; Warren became professor of anatomy and surgery; Benjamin Waterhouse, professor of theory and practice of physic; and Dr. Aaron Dexter, professor of chemistry. The school was moved to Boston, where Harvard Medical College has won for itself a great reputation.

The fourth medical school was Dartmouth, which was established in 1798 by the energy of Dr. Nathan Smith, who for twelve years was its entire faculty. Born in 1762, Dr. Smith was an alumnus of Harvard Medical College. Locating in Cornish, N. H., Dr. Smith soon observed the deplorable state of American medicine. "The large majority of the physicians were uneducated and unskillful. This was true with respect to all of New Hampshire, except Portsmouth and its vicinity, as well as the neighboring state of Vermont. There were Physicians and Surgeons, respectable for their talents and attainments, scattered over this region; but they were few compared with the whole number." To qualify himself more thoroughly for teaching, Dr. Smith spent a year in Edinburgh and London. In 1813 he became connected with the newly-established medical department of Yale College, where he lectured on theory and practice of physic and surgery. He also filled similar chairs in Dartmouth, the Vermont University and Brunswick College. Dr. Smith was no ordinary man. His success as a lithotomist (thirty operations, three deaths), as an ovariotomist, and his skill in the treatment of fractures of the thigh, stamp him as an original investigator. He was the first American to perform staphylorrhaphy, and he devised and introduced a new method of amputating the thigh. He devised an instrument for removing coins from the esophagus, wrote on typhus, on the pathology of necrosis, and reduced dislocations of the hip by a method which was new, pholosophical and ingenious. His apparatus for the treatment of fractures of the femur is well known.

Medical education in the early days was different from what it is at the present time. Most of our early institutions were modeled after the University of Edinburgh, of which many of our medical professors were graduates. It was the universal custom in this country for young men to study for several years under a preceptor, and many considered their education finished when the preceptor furnished a certificate as to length of study and the diligence of the bearer. Those who desired a degree in physic could get it by a four or five months' attendance upon one of the few medical colleges. The regulations of higher medical education of the time may be judged by the requirements in force in the Medical Department of King's College, New York, in 1767.

"Degrees in physics will be conferred upon the following terms:

"1. Each student shall be matriculated as in the Universities of England.

"2. Such students as have not taken a Degree in Arts shall satisfy the Examiners, before their admission to a degree in Physic, that they have a competent knowledge of at least the Latin Language, and of the necessary branches of Natural Philosophy.

"3. No student shall be admitted to his Examination for a Bachelor's Degree in less than three years after his Matriculation, and having attended at least one complete Course of Lectures under each professor, unless he can produce proper certificates of his having served an Apprenticeship of three years to some reputable practitioner; in which case he may be admitted to his examinations in two years from his matriculation.

"4. In one year after having obtained a bachelor's degree, a student may be admitted to his examination for the degree of doctor; provided he shall previously have attended two courses of lectures under each professor, be twenty-two years of age, and have published and publickly defended a Treatise upon some Medical Subject.

"5. The Mode of Examination, both public and private, shall be conformable to the Practice of the most celebrated Universities of Europe.

"6. Students from any reputable University may be admitted ad eundem, producing proper Certificates, and graduates will be entitled to the same privilege on producing the like Certificate and satisfying the Profesors of their Medical Abilities."

Other early medical colleges were the College of Medicine of Maryland (1807); College of Physicians and Surgeons of the Western District of the State of New York (1812); Medical College of Ohio (1818); Vermont Academy of Medicine (1818); Medical School of Transylvania (1819); and Medical School of Maine (1820).

The founding of these schools was only one of many evidences of progress Long before the end of the eighteenth century great things had been accomplished by American physicians. The founding of hospitals is not the least of these. The Pennsylvania Hospital, chartered in 1751, and the New York Hospital, founded in 1773, are lasting monuments of the labors of the doctors of that time. The first asylum for the insane was opened at Williamsburg, Va., in

1773. The first free dispensary was founded in Philadelphia in 1786.

The signing of the Declaration of Independence by five doctors, and the splendid services of our surgeons during the Revolution, must not be forgotten. The founding of medical libraries, beginning with that of the Pennsylvania Hospital in 1762, the library of the New York Hospital in 1776, and that of the College of Physicians of Philadelphia in 1788, show enterprise and foresight on the part of the profession. The establishment of numerous medical societies in this period is also an index of the progress of the time.

### EARLY MEDICAL JOURNALS AND BOOKS.

The first medical journal in the United States appeared in 1790, and although it was only a translation from the French, it shows advancement. The first really American product in medical journalism was the Medical Repository, begun in New York in 1797 and discontinued in 1824. The production of systematic treatises and monographs by American physicians can be said to date from 1775, when Dr. John Jones, of New York, brought out his "Plain, Precise, Practical Remarks on the Treatment of Wounds and Fractures." Noah Webster in addition to other works, wrote "A Brief History of Epidemic and Pestilential Diseases," which was published at Hartford, Conn., in 1799. Dr. William Curry, of Philadelphia, wrote his "Historical Account of the Climates and Diseases of the United States" in 1792, and John Leigh, of Virginia, carried off the Harveyan prize in Edinburgh in 1785, by his "Experimental Inquiry into the Properties of Opium." Valuable as were these contributions, it must be acknowledged that American medical literature really had its birth in the beginning of the nineteenth century.

### INOCULATION AND VACCINATION.

The quiet of colonial life was rudely disturbed early in the eighteenth century by a controvehsy over the practice of inoculation for small-pox. As happened so often in the early days of this country, the center of cyclonic disturbance was Boston. In 1721 small-pox appeared in this city and many cases were fatal. The Rev. Cotton Mather, of witchcraft fame, read in the Transactions of the Royal Society of London the communications of Dr. Emanuel Timoni Alopeek, who was living in Constantinople, and Dr. Pilarini of Venice, concerning the value of inoculation as practiced in Turkey. So impressed was Mather that he called the attention of Dr. Zabdiel Boylston and other Boston physicians to the method. As usually occurs, the profession was divided. Dr. Boylston approved, while Dr. William Douglass and Dr. Dalhonde were violently opposed to the experiment and publicly denounced the plan as introductory to the plague. All other Boston physicians sided with the opposition. The clergy for the most part sided with Dr. Boylston. The populace became enraged and paraded in front of Boylston's house, threatening to hang him. His life was saved by strategy. So deep was the hatred that a bomb was thrown into a room in which his wife and children were sitting, but fortunately it failed to explode. These outrages were committed before Dr. Boylston ever actually tried the value of inoculation. Such a storm would have terrified a man less courageous, but had no effect upon this medical hero, who believed inoculation would save many lives. On the 27th of June, 1721, while the epidemic was at its height Dr. Boylston inoculated his own son, a child of thirteen, and two blacks, one thirty-six, the other two years of age; and all with success. This only served to rouse the populace to fury. The physicians whom Boylston invited to investigate the effects of inoculation turned from him with scorn. When the excitement abated Dr. Boyston continued the practice. In all he inoculated two hundred and forty-seven persons, of both sexes and all ages, of whom three died. During the same period, of five thousand seven hundred and fifty-nine cases of natural small-pox, no less than eight hundred and forty-four died. The success of the procedure in America led to its more extensive adoption in England. It is gratifying to note that Dr. Boylston lived to see his opinions adopted by his countrymen and to receive distinguished honors from the Royal Society. Upon the invitation of Sir Hans

Sloane, he visited England in 1723. Three years later he published a book on inoculation, which was dedicated to the Princess Caroline, and was reprinted in Boston in 1727. Dr. Boylston died in 1766. His name should be placed high on the rolls of American medical heroes.

The first vaccinations in this country were made by Dr. Benjamin Waterhouse (1754-1846), who was professor of practice of medicine in Harvard College. He operated on his own children in 1800. In the same year Dr. John Crawford of Baltimore began the practice. The first vaccine institute in the United States was established in Baltimore by Dr. James Smith in 1802. Eleven years later Congress established a "National Vaccine Institute" in Baltimore under his supervision.

### THE WONDERFUL CENTURY.

In concluding this somewhat disconnected sketch, permit me to call your attention briefly to the nineteenth century. The nineteenth may justly be called the wonderful century. Perhaps it is not too much to claim for it that more progress has been made in the last hundred than in the preceding four thousand years. In all the preceding ages the following achievements should stand out prominently as worthy of notice: The mariner's compass; the steam engine; the telescope; the barometer and thermometer; printing; Arabic numerals; alphabetic writing; modern chemistry founded; electric science founded; gravitation established; Kepler's laws; the differential calculus; circulation of the blood demonstrated; light proved to have finite velocity, and the development of geometry. The nineteenth century has this wonderful record to offset that of all the other centuries, viz.: railways; steamships; the telephone; lucifer matches; gas illumination; electric lights; photography; the phonograph; the Roentgen ray; spectrum analysis; anaesthetics; antiseptic and aseptic surgery; conservation of energy; the molecular theory of gases; measurement of the velocity of light and demonstration of the earth's rotation; the uses of dust; development of scientific chemistry; theory of meteorites; the glacial epoch; theory of the antiquity of man; establishment of the theory of evolution; cell theory and embryology; the germ theory of disease and the function of the leuccocytes. Surely it has been a remarkable period in every calling and vocation known to man. It has seen the application of steam to land and oceanic travel, the development of electricity from an almost unknown agent to one that forms a part of our daily lives; a change in the social and political condition of millions of the earth's inhabitants, and it has witnessed revolutions of no mean proportions in the lomain of medicine. It has seen the division of medicine into numerous specialties, the birth of a new and mocroscopic world, the overthrow of ancient theories and systems and the establishment in their stead of truth, as discovered by scores of conscientious workers. It has witnessed a complete revolution in opthalmology, in surgery and in internal medicine; it has seen the birth of dentistry, the discovery of anesthesia, and the establishment of bacteriology upon a permanent basis. It has also looked upon the rise and fall of many illegitimate sons of Æsculapius and the birth and death of many false systems of medicine. It has been a wonderful but not a perfect century.

At the beginning of this century the most important centers of medical learning were London, Edinburgh, Paris and Vienna. American cities and American doctors were almost unknown; our country was in an embryonic state so far as medical teaching was concerned, and perhaps no one expectel much of scientific value to come from the Western Hemisphere. Everyone looked to Europe for new facts, new medicines, new books, and new procedures in surgery. Perhaps it was because of their very isolation from the great medical centres that our physicians and surgeons, thrown upon their own resources and compelled to think for themselves, were able to make such magnificent additions to the sum of medical knowledge. Certainly he would have been regarded as a false prophet who had ventured, at the beginning of this period, to say that from America would come such splendid additions to medical science as ovariotomy, anesthesia, and definite knowledge of gastric digestion;

yet these were contributed by men living in the wilds of the New World.

At the beginning of the Revolutionary war the medical literature of our country comprised one book, three reprints, and about twenty pamphlets. The libraries of American physicians were made up of such works as Van Swieten's "Boerhaave," "Haller's Physiology," the anatomical works of Douglass, Cowper, Cheselden, Monro, or Winslow; the surgical works of Le Dran, Heister or Pott; the "Midwifery of Smellie;" the "Materia Medica" of Lewis; and the works of Sydenham, Huxman, Mead and Whytt. Cullen's works were just being imported. The country could boast of three medical libraries, of which two were in Philadelphia, and one of these contained about two hundred volumes. Two medical colleges—Medical Department of the College of Philadelphia, 1765, and the Medical Department of King's College, New York, 1767—were in existence. The population of the country was about four millions. There were not more than two hundred physicians and surgeons in the whole country who were graduates. There was only one medical journal, Medical Repository, and only one State Medical Society, that of New Jersey, had been established. To cross the Atlantic might take three or four months. There were no railroads, poor postal facilities, no telegraph lines, no matches, and little money; and that almost worthless. Surely the outlook for the American doctor at the time of the Revolution was not a bright one. Nevertheless much of scientific value has been done in the United States in the nineteenth century.

### CONCERNING THE ACADEMY.

Finally, a word to the members of this Academy, which, in the short period of its existence, has influenced local medical life so powerfully. Let us continue to maintain its high character, admitting only those whose scientific attainments entitle them to a seat in the temple of Æsculapius; let us continue to be in the future what we have been in the past—a band of brothers who delight in assisting one another; and fortified by the consciousness of the rectitude of our intentions, let us press on to that goal which can be reached only by the good, the true and the industrious. Here there is no place for the self-seeking medical politician, the medical college boomer, the ethical quack, the newspaper advertiser, and the literary thief. The possession of the degree of doctor of medicine unfortunately does not always mean that its bearer is educated, gentlemanly and considerate of the rights of others. Let us continue to scrutinize carefully the credentials of those who knock at the door of the Academy; and if perchance any unworthy ones are admittel, let us not hesitate to cast them out. I congratulate you that you are members of the St. Louis Academy of Medical and Surgical Sciences. I thank you for the distinguished honor which one year ago you conferred upon me; I congratulate the medical profession of St. Louis that this Academy is a living, potent factor in its professional life; and I predict that the future holds in store for us many of those rewards which are more precious than gold or silver, more valuable than glittering brass or tinkling cymbals.

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## NEW YORK ACADEMY OF MEDICINE.

Section of Orthopaedic Surgery. Meeting of Dec. 21, 1900.

Dr. L. W. Ely read a paper entitled "A Few Observations from the Lorenz Clinic," and Dr. H. L. Taylor a resumé of the treatment of orthopaedic affections at Berck, France.

### RE-POSITION OF THE CONGENITALLY DISLOCATED HIP.

Dr. Ely, in a recent visit to Vienna, had spent some time in observing the practice of Lorenz, who was receiving cases of congenital dislocation of the hip from all parts of Europe. The cutting of tendons and instrumental traction were rarely seen. When the head of the bone had been replaced with suitable force and manipulation, the reduction was maintained by a most elaborately applied plaster of Paris spica, which did not include the trunk and extended below only to the knee. The patient was then sent home to stay several months. The results were good and sometimes so brilliant as to justify the enthusiasm of the operator, who believed that when a knowledge of the operation was widely spread reduction would be made at such an early age as to almost preclude the possibility of failure. The remarkable statistics of successes which had been published had their origin partly in enthusiasm and partly in the udoubted excellence of a method applied with requisite technique.

Dr. H. L. Taylor reported that the experience of Calot in his hospitals at Berck, on the channel coast of France, had shown that the bloodless reduction of congenital dislocation of the hip was applicable in children, up to 8 years of age, or later in exceptional cases. Active treatment covered from 6 to 22 weeks and included two or three weeks' traction with a weight of from 10 to 20 pounds, and at the operation the application of a force of 300 pounds for 10 minutes to bring the head of the boe down to or below the acetabulum. When the retaining apparatus was removed massage and training in walking completed the treatment. Patients had recovered without the trace of a limp. He had practically given up the open method. The correct attitude obtained by cutting would be at the expense of limitation of motion or anchylosis, which might be properly sought by this method in certain cases in which replacement was impossible.

Dr. R. H. Sayre had seen Lorenz operate last year in Paris at the Redard clinic. The patient, a child of about 8 years of age, was moderately disabled by a single dislocation of the hip. The thigh was made to form an angle of perhaps 20 degrees posterior to the plane of the body. A great deal of force was employed for this and in turning the limb in various directions. The head of the femur could be heard as it popped around on the ilium in what must have been a mass of lacerated tissues. The spica, which was nearly 2 inches thick where the strain came, included two loose strings for subsequent use in scratching the skin and keeping it clean. The head did not assume a permanent residence in the acetabulum. It was said that it would do so after the child had walked about for a year or two in the spica, a question which would have to be answered in due time.

Dr. C. H. Jaeger had recently spent 6 weeks in Vienna and reported that the treatment of congenital dislocation at the Lorenz clinic was exclusively by the bloodless method. Double cases were treated singly. The results were very favorable. The spica was applied with great care. Only a thin layer of cotton padding was used. The plaster bandage was applied very snugly, the thigh only being enclosed and a narrow strip going about the pelvis. This left the knee and ankle free and also the whole spinal column. The limb being thus fixed in extension and abduction, the patient soon learned to walk without crutches and with (in single cases) a high sole on the sick foot. It was most interesting to see a child with double dislocation, with both legs strongly abducted, spread eagle fashion, walking beautifully, hopping with one leg, then the other without a stick or help of any kind. Lorenz was accustomed to lay great weight on having the parents of the patient extend the knee many times daily, to prevent contracture. In opposition to these views Hoffa strongly advocated the open method.

Dr. W. R. Townsend said that Hoffa had stated in very positive terms that none other than the bloody operation could be of any use. An American authority also had reported that in a large number of open operations only two or three had exposed an acetabulum in which it was possible to place the head. The views and practice of Lorenz, however, were those of one whose experience with the open operation had been greater than that of all other operators combined. In one of the dissections reported by Dr. E. H. Bradford the capsule had been found pushed in front of the head of the bone in such a manner that a perfect reduction could not be made. This had led to the suggestion that in some cases the open operation might be modified by slitting the capsule instead of gouging or boring the bone which might lead to anchylosis or limited motion.

Dr. Jaeger thought that Hoffa was dissatisfied with the bloodless procedure partly because of the position in which he fixed the limb after reduction of the deformity. He applied the spica with the limb in extension and strong inward rotation, which could not afford a very firm hold for the femoral head in the acetabulum. In this position it was probable that re-luxation would occur during the application of the bandage or on the first attempt at walking.

Dr. T. H. Myers said that those American surgeons who, after trying both methods, favored the opening of the joint in every case were at variance with Lorenz. In his own experience, which had been considerable, he had not yet opened a joint, believing that the bloodless method should be tried first. It secured some perfect results and in the results which were not perfect the head was placed anterior to or above the acetabulum which was better than to leave it on the dorsum.

Dr. G. R. Elliott had passed several weeks with Lorenz in 1896 and had seen him operate many times by the non-cutting method, having already begun to discredit the cutting operation, which he had done so much to perfect. There could be no possible doubt of the good results obtained. He had seen many instances and had repeated them in his own practice. Success lay in the thoriughness of the procedure and in the perfection of the technique. (1) The head of the bone should be brought down to the level of the acetabulum. (2) It should be lifted over the posterior edge of the acetabulum. (3) Abduction should be extreme, even posterior to the mid plane of the body. (4) The plaster bandage should be pressed posteriorly agaist the joint to keep the reduced head from slipping backward. Great force was often required but neglect of any point would leave the head of the femur resting on the posterior acetabular edge to be dislocated as soon as the bandage was removed. Lack of success would be due to want of technique leading to imperfect reduction. Thorough padding was necessary beneath the bandage. Blood had appeared in the urine of a patient operated on by him last week. The child had been laid face downward to facilitate fortifying the splint posteriorly and the soft plaster bandage had pressed against the abdomen and hardened. Cutting the bandage relieved pressure and the blood disappeared.

### SEA-AIR FOR TUBERCULAR AND RICKETY PATIENTS.

Dr. Taylor in his review of the treatment at Berck said that Calot was an enthusiastic advocate of sea-air for patients affected with external or peripheral tubercular lesions, those of the skin, glands, bones and joints. He rejected phosphorus in the treatment of rickets, prescribing intestinal antiseptics and a diet mainly of milk and eggs. Many of his patients were kept recumbent. He affirmed that rickety deformities would disappear during a sojourn at the seaside.

Dr. Sayre had listened to Calot as he described the advantages of sea-side treatment. His interest in the subject was shared by others of his countrymen, whose native enthusiasm perhaps lent a too rose-colored light to their views.

Dr. Taylor had been impressed with the picturesque quality of Calot's writings. His zeal often broke through the conventional boundaries of scientific composition. The reader was entertained and delighted but not necessarily convinced.

### TREATMENT OF POTT'S DISEASE.

Dr. Ely said that Lorenz used a corset composed of perforated strips of celluloid, metal bands and canvas. It laced in front and was probably sufficiently comfortable but could not be said to "splint the spine."

Dr. Taylor said that although Calot declared that neither braces, plaster jackets nor corsets could prevent or arrest the deformity, all of his patients wore the plaster jacket after subjection to manual pressure directed against the kyphos. In certain cases ablation of spinous processes without invasion of the tubercular territory was recommended in order to facilitate correction and avoid sores from pressure of the jacket. The use of suspension, the amount of manual pressure and the degree of lordosis to be enforced were points to be settled for each case. Severe pressure and all traumatisms were to be carefully avoided, in marked contrast with the violent preceedings which called attention to the name of Calot in 1896, when he was claiming uniformly brilliant results from the outlay of all his strength on the kyphos supplemented with cuneiform resections in obstinate cases.

Dr. Sayre said that Calot's recent methods as he had heard him describe them varied but little from those of Dr. L. A. Sayre when he introduced suspension and plaster of Paris jacket. Calot had, however, secured a distinct advantage in extending the jacket up to the chin instead of stopping at the top of the sternum, thus promoting lordosis even of the lumbar spine and gaining a leverage over the entire spine which was impossible when the upper part of the vertebral column was free.

### TREATMENT OF JOINT DISEASES.

Dr. Ely said that at the Lorenz clinic joint diseases generally were treated by retention in plaster of Paris. The spica for hip disease usually had an iron stirrup running down from the bottom to take up the weight of the body.

Dr. Jaeger said that Lorenz taught that traction per se did no good in hip disease except as it caused fixation and that fixation alone was necessary as the enflamed joint could well bear the weight of the body so long as there was no rubbing of the joint surfaces.

Dr. Taylor said that Calot very justly believed that a stiff joint in a good position was better than a movable joint in a bad position. It was his practice to reduce the deformity by force and retain the improvement with a plaster spica. Complete anchylosis in a bad position required subcutaneous orteotomy of the femoral neck.

### TREATMENT OF ABSCESSES.

Dr. Jaeger had noticed fewer abscesses in patients affected with hip disease at Vienna than in patients of the same kind in America, which was not easy to explain except by climatic differences as the poor there were poorer, and their nourishment probably worse than in this country.

Dr. Taylor said that Calot forbade incision, curetting and excision in Pott's and hip disease unless the joint or abscess was infected or a sequestrum was found. He took the ground that patients affected with these diseases practically always got well under closed treatment and always died under the open treatment. Abscesses were to be treated by roborant drugs, a full diet, correct hygiene and rest. A cold abscess might be aspirated through healthy tissue and medicated by injections. By repeated aspirations and the application of compresses and bandages openings which seemed inevitable might be averted and in from 4 to 8 weeks the abscess would disappear without a scar and with healing of the bone in most cases. It was interesting to note that we had (1) in Calot a surgeon of 10 years' active experience, formerly an advocate of scraping, incisions and excisions, with the reputation of having done 80 excisions of the hip, who was now aggressively opposed to the operative treatment of diseases of the joints and (2) in Lorenz a surgeon of great experience in the cutting treatment of congenital dislocation of the hip who had given it up in favor of a bloodless method. The co-incidence and the contrast between the recent past and the present were quite impressive.

### LATERAL CURVATURE FROM DIVISION OF THE SPINAL ACCESSORY NERVE.

Dr. R. A. Hibbs related a case as follows: A girl 14 years old had had glands removed from the left side of the neck 6 months before she was first seen a few days ago. There was spinal curvature toward the right with drooping of the left shoulder, paralysis and atrophy of the trapezins and marked disability of the left arm. The patient declined an operation for uniting the ends of the spinal accessory nerve, which had evidently been severed at the point where it pierced the sterno-cleido-mastoid muscle.

Dr. Myers recalled the case of a similar patient, 15 years of age, whom he had been observing for 3 or 4 years. He saw her 18 months after the paralysis, and considerable permanent atrophy of the muscles of the shoulder, had set in. There was spinal curvature toward the opposite side which did not go on to be extreme and was easily controlled.

### FRACTURE OF CERVICAL VERTEBRAE.

Dr. Sayre related the case of a man who was carried home, unconscious, after a fall on the head and neck about 2 months ago. On regaining consciousness there was paralysis of the extremities, bladder and rectum, in which there was slow improvement after 2 days. As every attempt to walk increased his symptoms he was kept in bed several weeks. A diagnosis of fracture and dislocation of the 5th and 6th cervical vertebrae was made on his history, the flexion of the head, the absence of motion of the head and neck, difficulty in swallowing and the disability of the left upper extremity. The diagnosis was confirmed by skiagraphs, of which it had been necessary to take several from different points of view. One of the negatives was taken after fastening a bandage tightly over one shoulder and under the opposite arm-pit so as to make a gulch in which one edge of the plate had been forced so far as it would go. The skiagraphs and a brace were exhibited. The latter consisted of a leather and steel collar attached to posterior steel rods and a pelvis belt. The head and neck would be thus fixed until consolidation was assured, the brace being capable of easy modification from time to time as the patient improved. He recalled an almost exact counterpart in a case which occurred several years ago in which the application of a jacket and jury-mast had been followed by disappearance of the paralysis.

### PNEUMATIC PERINEAL STRAPS.

Dr. Myers exhibited rubber tubes 10 inches long and 1¼ inches in diameter designed to take the place of the ordinary perineal straps. Smaller sizes were also made. Each tube was provided with a removable cover of Canton flannel and a valve for inflation by a bicycle pump. The straps were not elastic. They were expensive but very durable. The pressure made by them was equalized automatically and that made them especially comfortable for older children and adults whose weight made perineal support difficult.

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Everywhere at the clinics in New York one sees the sub-cutaneous closure of wounds rather than the old-fashioned interrupted or continuous suture. It appears to be just as easy of introduction, gives less liability to wound infection from the staphylococcus pyogenes albus so commonly found in the deeper layers of the skin, and results in a far neater cicatrix—almost indiscoverable in many instances where primary union is obtained.—Lanphear.

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### AFTER MANY YEARS.

Early in 1873 George Zipperlein, a car inspector at Cincinnati, was run down and mangled by a train while inspecting freight. He sued the company and was given a verdict for $3,410. This judgment was affirmed through upper courts, but the court house at Cincinnati and all records of the case were burned. Then litigation began all over again and has just been concluded in Zipperlein's favor. He gets the original amount, with 6 per cent for seventeen years.—Chicago Law J.

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### STAB-WOUND IN A WOMAN.

Dr. Y. Ikeda reports the case of a woman who accidentally ran a bamboo stick through the perineum from the neighborhood of the anus into the abdominal cavity. With the exception of the formation of an extra-peritoneal abscess which was opened, no complications ensued except the formation of a vesico-vaginal fistula, which closed spontaneously in a week. The author considers it remarkable that neither tetanus nor a general peritonitis followed the accident—Medicinische Woche, November 12, 1900.

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The popularity of public baths in Boston is indicated by the extensive use which has been made of them in June, July and August of last year; during which the total number of bathers was 1,950,000—Col. Med. Jour.

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The exhibit of the University of Pennsylvania, which was said to be one of the most complete in the Paris Exposition, Education Department, will be brought to Buffalo for the Pan-American Exposition.—Col. Med. Jour.

# MEDICAL DIAL

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MARCH, 1901.

## GUNSHOT WOUNDS IN THE PHILIPPINE WAR.

Dr. O. F. Robinson, late acting surgeon, United States army, reports (Annals of Surgery, Feb. 1) his experience obtained from 1596 cases of gunshot wounds admitted to the First Reserve Hospital at Manila, supplemented by the personal notes of 462 of these cases occurring during the author's service as operating surgeon. Of the 22,181 cases received only a little over 7 per cent of the number had gunshot wounds. Sickness was less prevalent amongst the volunteers than among the regulars, while of the total number of wounded 59 per cent were volunteers. This is in a measure accounted for, when it is borne in mind that the regulars were just recuperating from the Cuban campaign, and that the volunteers by their own wish were kept on the firing line, leaving the drudgery of patrol and garrison duty to the regulars.

Self inflicted wounds. In an army of 65,000 men there were but fifty-nine cases of intentional self-inflicted gunshot wounds. Of this number twenty-one were among the volunteers, and thirty-eight among the regulars. While cowardice is unusual in the American army, yet the fear of an approaching engagement was occasionally so great among raw recruits that this means was taken of attaining disability. One soldier, so great was his dread of an impending battle, deliberately shot himself through the fleshy part of the thigh, thereby injuring the deep femoral artery so severely that he nearly died of secondary hemorrhage. A common occurrence was to shoot away the first finger, but the greater number of the intentional self injuries were the so-called "plunging wounds" of the hands and feet. In almost every instance these self-inflicted wounds were said to have been received by the accidental discharge of the man's own piece, while on outpost duty, alone at night. Investigation almost invariably proved that the wound was in such a position and from such a direction as to make it impossible except through design. So great was the influence of example that this matter of self infliction of wounds, like suicide, threatened to assume the proportion of an epidemic. Upon the recommendation of Chief Surgeon Col. Woodhull a board was appointed to investigate every case of accidental shooting, and to determine whether or not the wound in question was accidentally inflicted. After the publication of this order the number appreciably diminished.

Explosive effect. Dr. Robinson disputes the statements of theoretical writers that there are two places in the trajectory of the modern bullet in which the "explosive effect" on the tissues will be noted; viz., one within 350 yards, when it is said the rotary and unsteady motion of the bullet lacerates and destroys the tissues surrounding the tract; at the other, in the last position of the missile's flight, when it again assumes this wabbling, destructive character. Experience in the Philippines went to show that no instance of this destructive effect upon tissue was noted in wounds received at extreme range, and in the gunshot wounds received at close quarters it was comparatively rare. In 462 recorded cases mention is made of the "explosive effect" in but twenty-four cases, and all of these were wounds of long bones and calvarium. In no case was it noted in the muscles alone, and in but two instances in wounds of solid organs. On the contrary, several gunshot wounds of the liver, spleen and kidneys received within this "explosive" zone were entirely without this characteristic. He therefore concludes that the explosive effect of the modern high-velocity projectile depends chiefly on the character of the tissue struck, and less on velocity. In particularly pliable, brittle structures this phenomenon will undoubtedly at times occur in wounds received at close range, but its prevalence is by no means as common as recent military literature would lead us to believe." In comparing the wounds inflicted by the new and the old models of projectiles, Dr. Robinson says:

"The wounds of the Krag and Mauser are indistinguishable, both in appearance and in results. Of Springfield and revolver wounds there were comparatively few. Only eight shell wounds were seen. These occurred among our own men, and beyond severe lacerations presented nothing characteristic. The natives struck by artillery fire were usually killed, or treated in the native hospitals, and so no record of these wounds is at hand. There was a large percentage of Remington wounds. The Remington bullet wound is almost invariably infected, but particularly so when fired by black powder. The insurgents reloaded many of their shells with smokeless powder, so that an opportunity was thus afforded for comparison. Incidentally it may be mentioned that so scarce did powder of any sort become that the natives began to use the heads of matches as an explosive. From a certain Japanese match, in general use in the Philippines, the head was clipped off. Two small boxes thus supplied a smokeless powder for one and one-half shell. Experiments by an artillery officer demonstrated the fact that with this force eight inches more penetration was secured than with the Krag-Jorgenson cartridge. It is needless to add that as soon as the fact became known, matches were made contraband of war, and gunshot wounds from this peculiar explosive ceased. The difference between the wounds of the reloaded shells and those of the old low-velocity charge was not very marked. The destruction of tissue was somewhat greater, and infection was more certain in wounds from the high explosive. The character of the bullet itself is a most important factor in the introduction of infection. The fact that wounds from the "soft-nosed" or Dumdum Mauser bullet are also very prone to suppurate would tend to support this belief. The ricochetted or spent Mauser bullet from which the metal jacket has been displaced (before or at the time of impact) will almost invariably cause an infected wound.

"The aseptic properties, then, of the modern high-velocity projectile, we are led to believe, is brought about, first, by the hard, smooth character of the bullet, which bruises and lacerates the tissue to the minimum extent, and does not carry foreign substances (or minute infection) into the wound. Second, by the velocity of the projectile, whereby in its flight it is rendered sterile. Third, by the early application of an antiseptic dressing on the field."

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## CHRISTIAN SCIENCE AND THE LEGISLATURE OF THE STATE OF NEW YORK.

Two or three hundred Christian Scientists recently appeared before the health committee of the Assembly at Albany, of which Dr. U. H. Henry is chairman, to oppose the bill which, if it becomes a law, will prohibit treatment by faith healers.

The bill was introduced by Assemblyman Bell and the State Medical Society is behind it. Circulars have been sent to physicians generally asking their support for the measure. The bill takes the form of an amendment to Section 152 of the public health law of 1893 and makes a definition of the practice of medicine as follows:

Any person shall be regarded as practicing medicine within the meaning of this act who shall prescribe, direct, recommend or advise, for the use of any other person, any remedy or agent whatsoever, whether with or without the use of any medicine, drug, instrument or other appliance, for the treatment, relief or cure of any wound, fracture, or bodily injury, infirmity, physical or mental, or other defect or disease. This article shall not be construed as prohibiting the service of any person in an emergency or the domestic administration of family remedies.

Faith healers and others not licensed to practice have been secured from legal interference under the present construction of the law so long as they did not actually give medicine or perform surgical operations.

In the circular sent to physicians for action this fact is brought out with the statement that there are innumerable quacks and charlatans who openly practice in defiance of the law, inflicting injury on the community at large and escaping the penalty of the law.

Dr. Van Fleet, chairman of the committee which drafted the bill, said that it was aimed at numerous so-called systems of medicine.

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## MEDICAL APPOINTMENTS.

Gov. Van Sant recently made the following appointments:

State Board of Medical Examiners, Dr. A. G. Stoddard, Red Wing, in place of Dr. Charles Simpson of Minneapolis; Dr. William Davis, of St. Paul, in place of Dr. J. M. Brimhall; Dr. A. F. Groves of Brainerd, in place of Orin B. Tarbox, of Princeton.

N. O. Werner, of Minneapolis, was reappointed as a member of the Board of Managers of the State Training School for boys and girls, at Red Wing.

Dr. Henry Hutchinson, of St. Paul, was reappointed as a member of the State Board of Health.

While the appointment has not yet been made, it is conceded that Joseph Allen, of Duluth, will be made chief factory inspector. Thus far the governor has reached no final determination regarding the selection of a boiler inspector for Minneapolis.

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## DRESSED OYSTERS.

Something new. There is no more propriety in swallowing an oyster whole, minus his shell, than there would be in eating a calf or lamb, only denuded of their skins, if that were possible. Let the oyster be opened and washed clean of its inward contents of salt mud, decaying wood and vegetable matter, typhoid germs, and other microbes that it is trying to digest. then make your soup, fry, escallop, or bake the dainty patty, and you will have dishes free from dangerous poisons, palatable, delicious.

## TO THE PHYSICIANS OF THE UNITED STATES.

The National Woman's Christian Temperance Union has been active for twenty-seven years in combating the evils of alcoholic liquor drinking..Among its most effective allies have been those physicians who do not prescribe alcoholic liquors, allowing alcohol a very limited sphere of usefulness, or none at all.

We are endeavoring to bring the teachings of such physicians to the people and we belive that much good is being accomplished thereby. It is apparent, however, that if the evils of liquor drinking (ill-health, poverty, insanity and crime) are ever to be fully abated, the medical profession must take a more active part in this much desired reform. They, more than any others, can disabuse the public mind of old-time errors concerning the use of or necessity for alcohol, either as a beverage or for medicinal purposes. It would seem to be the duty of those to whom the public looks for guidance in all things pertaining to health, to continue to make the most careful investigations of the nature of alcohol and its effects upon the human system and to see to it that their medical practice and teaching, as well as their personal example, is upon the side of safety.

The New York School of Clinical Medicine, a postgraduate college for physicians, has just now opened a new department for the study of the constitutional effects of alcohol and other drugs.

An eminent Russian physician, in a paper, read before the International Medical Congress, held at Moscow, August, 1897, said: "The struggle against alcoholism merits as much attention on the part of the medical profession as that against the various epidemics, and the success of the struggle is impossible without the active sympathies of the medical profession."

Realizing the truth of the foregoing statement, the National Woman's Christian Temperance Union, at the beginning of this new century, appeals to physicians to aid in the efforts being made to remove as far as possible all tendencies and temptations toward the formation of the drink habit. The medical profession can wield a powerful influence by bringing to the knowledge of the people the consensus of scientific opinion and practical observation, on the disastrous results which follow the habitual and indiscriminate use of alcohol.

Particularly would we ask physicians to warn parents against the home prescription of alcohol and against the use of proprietary medicines containing alcohol or other narcotic drugs, by showing them the danger and by teaching them a better way.

We respectfullv ask that this appeal be published in all medical journals and that it be brought before national, state and county medical societies, for discussion. ,

With profound respect for your honorable profession, and with hope for your active co-operation in this work, we are,

Sincerely yours,
Lillian M. N. Stevens,
Pres. N. W. C. T. U.
Susanna M. D. Fry,
Cor. Sec.

Dr. D. W. Bolles, of Brawnton, Minn., and Dr. R. S. Bacon, of Montevideo, are doing some post-graduate work at the New Orleans Polyclinic.

## OBITUARY.

### DEATH OF DR. WM. GLENN.

In the death of Dr. Wm. Glenn, which occurred on the 21st ult., the profession sustained a heavy loss, for he was one of the ablest young men in practice in the state. He was 38 years of age, a graduate of the College of Medicine and Surgery of the University of Minnesota, in the class of 1893, and also traveled and studied abroad. For several years he was instructor in Clinical Medicines in the University of Minnesota, doing very efficient work and giving evidence of marked ability as a teacher. Three years ago he accepted the proffered chair of Physical Diagnosis and Clinical Medicine in the Medical Department of Hamline University which he filled with eminent talent until failing health, due to organic heart disease from which he had suffered for years, compelled him to withdraw on leave of absence, from active work with his classes.

Dr. Glenn was a man of sterling character, honorable and upright in all his dealings, of large heart, gentle sympathy and winning ways; a personality peculiarly for the finest success in practice and for the best of service to humanity. He was universally popular with his students and beloved by his fellow physicians and the wide circle of his acquaintance, who, accepting as best the Divine Providence that has seen best to remove him from life's work in its early prime; still feel his death keenly and deeply with the widow and the two children who mourn the loss of husband and father.

### DR. O. N. MURDOCK

Who died at his home in Minneapolis Jan 29th, was born at Rensselaer Falls, N. Y., may 14th, 1853.

He attended Oberlin College and the University of Michigan and graduated in medicine from the Medical Department of the State University of Iowa in 1876, and located the same year at New Richmond, Wis. He removed to West Superior in 1883, and to Everett, Washington, in 1890. For the past six years he was engaged in the practice of medicine in Minneapolis. He leaves a wife, one son and one daughter, also two brothers Dr. A. J. Murdock, of Minneapolis and Dr. H. G. Murdock of Taylors Falls.

Dr. Murdock stood well in the profession and his sudden death was a shock to a large circle of friends both in and out of the professional ranks, but more particularly was it an irreparable loss to the surviving widow, children and brothers.

### THE RESULTS OF OPERATIONS ON VARICOSE VEINS.

Dr. J. B. Blake states that operation for radical cure of varicose veins by dissection is not successful in every case. To obtain successful results, cases must be selected and certain conditions avoided, and recommended to palliative treatment. The conditions are: (a) Old age, or an extremely debilitated condition; (b) excessive and very extensive varicosity; (c) occupations that to an extraordinary degree favor the development of varicose veins.

Cases that may be cured by a thorough and careful operation are: (a) Local varix, even of marked prominence, particularly if thrombosis has occurred, either in the thigh or lower leg; (b) extensive varix, limited to a single venous stem; (c) varicosities which are a bar to passing civil service, military or naval examination; (d) cases in youth or middle life; (e) cases in which the development of the permanent varicosity was at least partially due to more or less removable conditions (flat foot, garters, etc.).

Operation, if not entirely successful, will usually relieve such complications as thrombosis, hemorrhage and ulceration. In all cases operated on, general systemic treatment as well as local treatment should be prescribed, together with exercise and the avoidance of a continued upright position whenever possible. Cure of symptoms does not necessarily mean the removal of all visible varicosities.—Boston Med. and Surg. Journ., Dec. 13.

# Book Notices.

## SAUNDER'S AMERICAN YEAR-BOOK.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY FOR 1901. A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books, of the leading American and foreign authors and investigators. Arranged with critical editorial comments, by eminent American specialists. In two volumes—Volume I, including General Medicine, Octavo, 681 pages, illustrated; Volume II, General Surgery, Octavo, 610 pages, illustrated. Philadelphia and London; W. B. Saunders & Co. 1901. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

The issue of the Year-Book for 1900 in two volumes met with such general approval from the profession that the publishers decided to follow the same plan with the Year-Book for 1901. This arrangement has a two-fold advantage. To the physician who uses the entire book, it offers an increased amount of matter in the most convenient form for easy consultation, and without any increase in price; while specialists and others who want either the medical or the surgical section alone, secure the complete consideration of their branch at a nominal sum, without the necessity of purchasing considerable material for which they have no special use.

## DAVIS'S OBSTETRIC AND GYNECOLOGIC NURSING.

OBSTETRIC AND GYNECOLOGIC NURSING. By E. P. Davis, A.M., M.D., Professor of Obstetrics in Jefferson Medical College and Philadelphia Polyclinic. 12mo, volume of 402 pages, fully illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Price $1.75 net.

This volume is designed to furnish instruction as to the various duties of the obstetric and gynecologic nurse. Obstetric nursing demands some knowledge of natural pregnancy, and of the signs of accidents and diseases which may occur during pregnancy. It also requires knowledge and experience in the care of the patient during the labor and her complete recovery, with the needs of her child. The obstetric nurse must also know how to help patient and doctor in the accidents and complications of labor, and has an important part to play in caring for mother and child in the diseases which occasionally attack them during the puerperal period. Gynecologic nursing requires special instruction and training, and a thorough knowledge and drill in asepsis and antisepsis are absolutely indispensible.

## MEDICAL SOCIETY CALENDAR.

The following calendar of the medical societies for 1901 was compiled by Charles Wood Fassett, M. D., editor of the American Journalist, St. Joseph, Mo., and appeared in the January number of that journal. The name of each society, time and place of meeting and the name of the secretary are indicated:

### NATIONAL SOCIETIES.

American Medical Association.
June 4-7, St. Paul, Minn.
George H. Simmons, Chicago.
American Academy of Medicine.
June 1-3, St. Paul, Minn.
Charles McIntyre, Easton, Pa.
American Medical Editors' Association.
June 3, St. Paul, Minn.
O. T. Ball, St. Louis.
American Academy of Railway Surgeons.
September, Chicago.
T. B. Lacey, Council Bluffs, Ia.
American Climatological Association.
May 30, Niagara Falls.
Guy Hinsdale, Phila.
American Dermatological Society.
May 30, Chicago.
F. H. Montgomery, Chicago.
American Gynecological Society.
May 28, Chicago.
J. R. Goffe, New York City.
American Laryngological Association.
May, New Haven, Conn.
James E. Newcombe, New York City.
American Medico-Psychological Association.
May, Milwaukee, Wis.
C. B. Burr, Flint, Mich.

American Neurological Association.
Boston.
G. M. Hammond, New York City.
American Ophthalmological Society.
July 17, New London.
S. B. St. John, Hartford, Conn.
American Orthopedic Association.
May 7-9, Niagara Falls.
John Ridlon, Chicago.
American Otological Society.
July 16, New London.
F. L. Jack, Boston.
American Pediatric Society.
May 27-29, Niagara Falls.
S. S. Adams, Washington, D. C.
American Physicians, Association of.
April 30, Washington.
H. Hun, Albany, N. Y.
American Proctological Association.
Oct. 22-26, Indianapolis.
C. O. Probst, Columbus, O.
American Public Health Association.
June 4-5, St. Paul, Minn.
W. M. Beach, Pittsburg.
American Surgical Association.
May 7-9, Baltimore.
Herbert L. Burrell, Boston.
Mississippi Valley Medical Association.
Sept. 10-12, Put-in-Bay.
H. E. Tuley, Louisville.
Missouri Valley Medical Association.
March 21, Omaha, Neb.
Chas. Wood Fassett, St. Joseph, Mo.
Obstetricians and Gynecologists, Am. Assn. of.
Sept. 17-19, Cleveland.
W. W. Potter, Buffalo.
Railway Surgeons, Internat. Association of.
June 10-12, Milwaukee.
L. J. Mitchell, Chicago.
Southern Surgical and Gynecological Association.
Nov. 12-14, Richmond, Va.
W. D. Haggard, Jr., Nashville.
Western Surgical and Gynecological Association.
Dec. 27-28, Chicago.
George H. Simmons, Chicago.
Tri-State Medical Society.
April 2-3, Keokuk, Iowa.
W. B. LaForce, Ottumwa, Ia.

## STATE MEDICAL SOCIETIES.

Alabama, Medical Ass'n of the State of.
April 16, Selma.
G. P. Waller, Montgomery.
Arizona Medical Association.
February, Phoenix, Ariz.
Chas. H. Jones, Tempe, Ariz.
Arkansas Medical Society.
May 15-17, Hot Springs.
Frank Visonhaler, Little Rock, Ark.
California State Medical Society.
April 16-18, Sacramento.
Geo. H. Evans, San Francisco.
Colorado State Medical Society.
June 18, Denver.
H. B. Whitney, Denver, Col.
Florida Medical Association.
April 10, Jacksonville.
J. D. Fernandez, Jacksonville.
Georgia Medical Association.
April 17, Augusta.
Louis H. Jones, Atlanta.
Idaho State Medical Association.
Oct. 3-4, Pocatillo.
Ed. E. Maxey, Caldwell, Idaho.
Illinois State Medical Society.
May 21-23, Peoria.
Edmund W. Weiss, Ottawa, Ill.
Indiana State Medical Society.
May 15-17, South Bend.
F. C. Heath, Indianapolis.
Iowa State Medical Society.
May 15, Davenport.
Jas. W. Cokenower, Des Moines, Ia.
Kansas Medical Society.
May 2-4 Pittsburg.
W. E. McVey, Topeka.
Kentucky State Medical Society.
May, Louisville.
Steele Bailey, Stanford, Ky.
Massachusetts Medical Society.
June 12, Boston.
F. W. Goss, Roxbury.
Michigan State Medical Society.
May 15-16, Battle Creek.
Andrew P. Biddle, Detroit.
Minnesota State Medical Society.
June 3, St. Paul.
Thos. McDavitt, St. Paul.
Mississippi State Medical Association.
April 17, Jackson.
J. R. Tackett, Meridian.
Missouri State Medical Association.
May 21-23, Jefferson City.
B. C. Hyde, Kansas City.
Montana, Medical Association of.
May 15-16, Great Falls.
B. C. Brooke, Helena.
Nebraska State Medical Society.
May 7-9, Lincoln.
A. D. Wilkinson, Lincoln.

New Hampshire Medical Society.
May 16-17, Concord.
G. P. Conn, Concord.
New Jersey Medical Society.
June 25-27, Allenhurst.
Wm. J. Chandler, South Orange.
New Mexico Medical Society.
May, Alamogordo.
J. F. McConnell, Las Cruces.
New York State Medical Association.
Oct. 21, New York City.
F. H. Wiggins, New York City.
North Carolina, Medical Society of the State of.
May, Durham.
G. W. Pressley, Charlotte.
North Dakota Medical Society.
May 22-23, Fargo.
Paul Sorkness, Fargo.
Ohio State Medical Society.
May 8-10, Cincinnati.
J. A. Thompson, Cincinnati.
Oregon State Medical Society.
June 5-7, Portland.
Wm. F. Amos, Portland.
Pennsylvania Medical Society.
Sept. 17, Philadelphia.
C. L. Stevens, Athens.
South Carolina Medical Association.
April 17, Florence.
A. J. Buist, Charleston.
Tennessee State Medical Society.
April 9-11, Nashville.
W. D. Haggard, Jr., Nashville.
Texas State Medical Society.
April 23, Galveston.
H. A. West, Galveston.
Virginia Medical Society.
Oct. 22, Lynchburg.
Landon B. Edwards, Richmond.
Washington State Medical Society.
May 8-9, Seattle.
A. H. Coe, Spokane.
Wisconsin State Medical Society.
June, Waukesha.
C. S. Sheldon, Madison.

## AN UNWILLING PALLBEARER.

A Frenchman who has not yet fully mastered the intricacies of the English language, went to a friend the other day for information and advice.

"Can you tell me," he said, "vat heem ees—vat you call?—pole bear? Vat ees a pole bear, eh?"

"A polar bear?"

"Yes. Vat does heem do?"

"Oh, it just sits on the ice and eats fish."

"Comment! And I shall do that? Nevaire! Nevaire! Not at all!"

"What do you mean?"

"Vell, a man in de boarding-house vere I leeve, he die, and they shall say to me vill I be a polar bear for heem. Seet on de ice and eat fish! I willl not do eet! Not even for a dead man! Not at all?"—Ex.

## AN EASY WAY TO KEEP WARM.

An English physician calls attention to this fact, that deep and forced respirations through the nose, being careful to hold the air as long as possible before expelling it, will keep the entire body in a glow in the coldest weather. He was himself half frozen one night, and began taking deep breaths and keeping the air in his lungs as long as possible. The result was that he was thoroughly comfortable in a few minutes.

The deep respirations, he says, stimulate the blood currents by direct muscular exertion, and cause the entire system to become pervaded with the rapidly generated heat.—Ex.

## AN ANECDOTE OF FREDERICK TREVES.

Sir Frederick Treves was traveling by sea with a friend, and the latter having a bad foot required slight surgical treatment, Mr. Treves took him along to the ship's doctor, who soon made preparation to operate. A mild suggestion from Mr. Treves as to using a grooved needle was not received with favor. At a second even milder and more deferential suggestion that carbolic was a rather good thing sometimes to use, the great surgeon got such an indignant look that he modestly retired. The doctor then made some cutting remarks about "amateurs," and asked the name of the vanquished one. "Oh, his names is Treves," replied the patient quietly. "Any relation to the man who wrote those books?" —pointing to a complete row of Mr. Treves's works. "Happens to be the same man," was the smiling reply.—Medical Standard.

## THE MOSQUITO FAMILY.

The word mosquito has no scientific import. Derived from the Spanish or Portuguese, it simply means "little fly;" it used popularly to denote a gnat which bites, and most gnats bite when they have a chance. The word is sometimes extended to include certain midges. The Dipterous family Culcidae, to which this gnat belongs, contains, according to Major Giles, some two hundred and forty-two species, divided among eight genera. The great majority of species (some one hundred and sixty), however, belong to the genus Culex; Anopheles includes thirty, while the remainder are divided among the other six genera, none of which are large. The collections which have recently been made at the British Museum are said to contain ten species of Anopheles new to science, so that if all Major Giles' species are accepted we have a total of some forty species of the genus which has been hopelessly convicted of being the medium by which the malaria parasite is transmitted from person to person.—Quarterly Review.

## A NEW SYMPTOM IN EPILEPSY.

Carlo Ceni reports a curious fluctuation in the bodily temperature of epileptics, which he considers of sufficient constancy and importance to merit a place in the symptomatology of the disease. The phenomenon in question is a very marked temporary drop in temperature occurring at various times of the day or night. The drop may be of from one to five degrees and last from a half to one hour. The phenomenon has all the characteristics of an epileptic crisis, which does not come to the consciousness of the patient. In some instances it was observed three or four times in the twenty-four hours, but more often it appears periodically at intervals of several days or weeks. There is no apparent connection between the occurrence or the frequency of these variations in temperature and the severity of the disease itself, neither do they appear to stand in any relationship to the typical epileptic seizures.—Medical Record.

## TO BANISH THE MOSQUITO.

The vastly increased importance to humanity, which the mosquito has assumed during the past year, renders all that pertains to this pest peculiarly interesting at the present time.

While it is not strictly new or novel, it is still noteworthy as being communicated to the state department in Washington by Consul Plumacher, of Maracaibo, that the ricinus communis or castor-oil plant is so distasteful to the insect that it will remain neither about premises where these trees are planted, nor in appartments where the cut branches, leaves, and seeds have been exposed.

Even in cold climates it is said that plants four or five feet in height can be raised from the castor seeds, and under favorable conditions will grow in great profusion. If the personal experience of Consul Plumacher in keeping his household free can be duplicated by each future experimenter, sleepful nights and freedom from malaria may still be within the grasp of all who dwell in regions where the tuneful piper loves to exercise his preogatives.

The castor plant has already done much for man. If this boon is added, we can well afford to toast it in a large bumper of its own oil.—Med. Record.

## CRUELLY DECEIVED.

The Tramp—Lady, have yer any wood yer want cut?

The Lady—I have.

The Tramp (after recovering himself) —E-r-lady, I want ter warn yer against yer next door neighbors—don't trust dem!

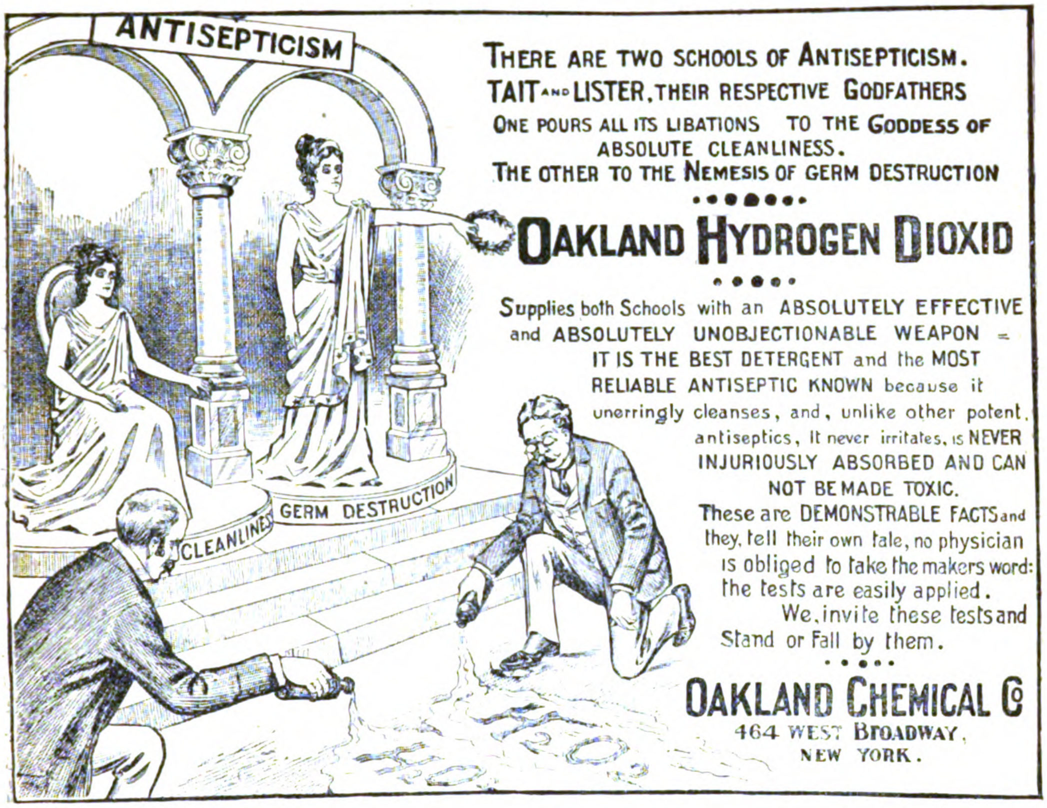
The Lady (in surprise)—What do you know about them?

The Tramp—Dey told me yer burned nothin' but gas and coal. Good day, ma'am.—Puck.

## DEEP FEELING.

"You love your native land more than ever, do you not, now that you are about to leave it?" said the experienced traveler.

"Oh, yes," gasped the young and lovely passenger on her first tour abroad, as the ship encountered the ocean swell. "I—I feel like hugging the shore right now!"—Chicago Tribune.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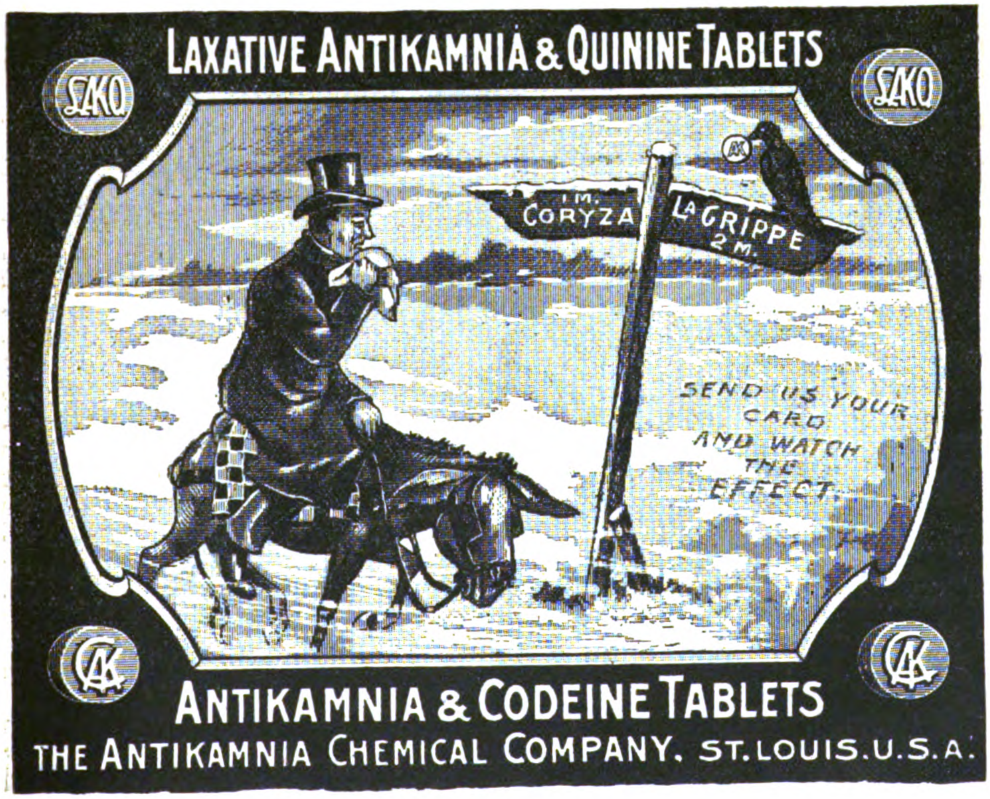
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## THE MALTINE COMPANY'S NEW POLICY.

The Maltine Company has during its existence of more than 25 years consistently depended upon strictly ethical methods in building up its great business. It submits samples of its products to physicians, to enable them to satisfy themselves of their therapeutic value, issues clinical records made in the leading hospitals and by reputable physicians in private practice, and publishes dignified and effective advertisements in medical journals. All inquiries, requests for literature or samples from laymen are referred to local physicians.

Now the company has taken another step, wise and far-reaching, which will add still more to its prestige among the profession. It will in future not only refuse to supply the Maltine preparations to department stores, but will refuse to supply them to dealers who are known to sell them to department stores. This not only emphasizes the fact that the Maltine preparations are classed as standard ethical products, just as quinine, iodide of potassium, fluid extracts, etc., are, but will enable retail druggists to secure the legitimate profit which is clearly due them.

We trust that our readers will duly appreciate the importance of The Maltine Company's new policy, and continue to accord it that support which its honorable and consistent methods so richly deserve.

## JUST NOW.

It is a matter of common observation that many cases of bronchitis will persist in spite of the continued, varied and judicious use of expectorants. "The cough," says one prominent physician, "hangs on, harasses the patient with its frequency and severity, and is exceedingly liable to recur every winter—to become a regular 'winter cough'—with its sequelae of emphysema, asthma and, ultimately, dilatation of the right heart."

Dr. Milner Fothergill of London, insisted that cough of this character is due to lack of tone, not only in the general system but in the blood vessels of the bronchioles. This authority demonstrated that the only successful method of treating this form of cough is by means of appropriate systemic and vascular tonic medication. It is particularly in this class of cases that Gray's Glycerine Tonic Comp. has gained a most enviable reputation. This remedy, which is a most palatable and agreeable one, not only has a selective tonic and anti-phlogistic action upon the respiratory mucous membrane, but it removes the ever-present element of systemic depression. The beneficial effects of Gray's Glycerine Tonic Comp. even in rebellious cases, are invariable and most pronounced.

## THE GENITO-URINARY CONDITIONS WE FIND IN THE WEAK NERVOUS TYPES MET BY SANMETTO.

Sanmetto clinically fulfills the promise of its physiological action. Hence its efficacy and seeming popularity with the profession in treating genito-urinary cases characterized by irritable, painful, frequent and scanty micturition—conditions we find in the weak, nervous, types.

W. H. Christie, M.D.,

Prof. Materia Medica and Therapeutics in the Omaha Med. Col. Phys. to Immanuel and Clarkson Memorial Hospitals.

Omaha, Nebr.

## GRIPPAL MEDICATION SIMPLIFIED.

The large and increasing number of deaths, especially among our prominent men, due primarily to the prevailing epidemic of LaGrippe, and the serious illness of President McKinley from the same cause, impresses us with the advisability of calling the attention of our many readers to the really excellent remedial qualities of the different products of the Antikamnia Chemical Company in the treatment of this scourge and its many insidious allied diseases. For the purpose of reference, we append a list of their various preparations, viz.:

Antikamnia Tablets.
Antikamnia and Codeine Tablets.
Antikamnia & Quinine Tablets.
Antikamnia & Salol Tablets.
Antikamnia, Quinine & Salol Tablets.
Antikamnia Powdered.
Laxative Antikamnia Tablets.

**SANMETTO** FOR GENITO-URINARY DISEASES.

A Scientific Blending of True Santal and Saw Palmetto in a Pleasant Aromatic Vehicle.

A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN
PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—
CYSTITIS—URETHRITIS—PRE-SENILITY.

DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO., NEW YORK.

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That the Samson Group Mining Properties,
LOCATED NEAR POLLOCK, IDAHO,
And Consisting of Eleven Claims,
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If you are not aware of this fact, please write us and we will gladly send you particulars which will interest you.

Developments are now under Way which Assures Success beyond Our Greatest Expectations.

The par value of this stock is $1.00 per share. Shares are non-assessable. A limited number of shares can now be bought for 15 cents per share, in blocks of 100 shares or more. The probabilities are that these shares will be snapped up at double the price in a very short time.

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Laxative Antikamnia & Quinine Tablets.

The last mentioned is a new and without doubt a most desirable combination in the above complaints and also in all malarial and congested conditions.

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**(Metal Miner, Minneapolis.)**

### PARTING GOLD AND SILVER BULLION.

The parting of gold and silver bullion is an interesting process, the outlining of which will be entertaining to the reader who is not familiar with refining methods, for whom the following is herein inserted. It appeared in the Mining and Scientific Press (San Francisco), in its issue of May 19, 1900:

There are three methods of parting gold and silver; the nitric acide, the sulphuric acid, and the electrolytic process, respectively. The latter is well adapted to large smelting works. The nitric acid process is the oldest. It is thoroughly satisfactory, but the comparatively high price of nitric acid and the necessity of using either platinum or porcelain vessels has led to its being superseded in many modern refineries by the sulphuric acid parting process. Diluted sulphuric acid has no action on silver, but the strong acid, when heated, is decomposed by that metal, giving off sulphurous acid and forming silver oxide, which passes into solution in the excess of acid as silver sulphate. If gold is present in percentage, not to exceed one-third of the whole, strong sulphuric acid will extract the silver and leave the gold as a granular brown sediment. Should the bullion contain one-half gold, the latter metal will protect the silver against acid attack, and the result will be failure. It is the business of the refiner to adjust for the melting pot gold deposits with those of silver carrying small quantities of gold, or to add fine silver so as to have from two to three parts of silver for each part of gold. Such an admixture is melted in a large crucible, thoroughly mixed, and then, with a dipping cup, is poured into cold water. Most bullion contains varying quantities of copper, and this metal works very badly in strong sulphuric acid. While decomposing the acid with formation of copper sulphate, the latter, unlike the silver sulphate, is insoluble in oil of vitriol, hence, if present in any considerable quantity, copper soon acts as a protector to the bullion and the chemical action either ceases or becomes tediously slow. Besides apportioning the silver to gold, it is necessary, therefore to so combine deposits that the granulations do not contain more than 6 to 8 per cent of copper. The success of this process really depends upon the fact that while weak sulphuric acid rapidly dissolves iron, yet, if the acid be strong enough, it has no appreciable action—just the reverse of its relations to silver. Cast-iron vessels may, therefore, be employed. Large iron kettles are used, weighing half a ton, mounted over a furnace. Into this a charge of 300 to 400 pounds of granulated bullion is placed, and covered with three or four times its weight of acid—66 B. Heat is applied when a lively evolution of sulphurous acid sets in, which, if too violent, must be checked by the addition of a little cold acid and slackening of the fire. This boiling is continued for several hours, during which time the escaping and consumed acids are gradually replaced. When the solution is complete the fire is withdrawn and the contents of the kettle allowed to quietly settle. A little cold acid is added to aid the precipitation of any suspended gold. Hoods over the kettles carry off the fumes to condensing and suppression apparatus. The strongly acid solution, while still hot, is siphoned off into the reducing houses. These are long, rectangular vats lined with lead, and provided with sloping covers. Slabs or ingots of metallic copper are placed on the bottom and sides of these vats, which are then partly filled with cold water. The hot silver solution is then run in, with resultant crackling and spluttering. The result is a weak solution of silver sulphate, rendered milky by the separation of fine crystals of that salt, the solubility of which is very slight in pure water. The copper immediately begins to precipitate the silver as a crystalline mass, easily detachable from the plates when the operation is complete. This requires about twenty-four hours. Meanwhile the copper has taken the place of silver, leaving a strong solution of copper sulphate (blue vitrol). This blue solution is drawn off for crystallization, and the spongy silver carefully transferred to leaching tubs for thorough sweetening with fresh water. The silver, now in the form of minute, flaky crystals, is compacted into cakes by means of hydraulic pressure and these cakes dried in a current of warm water, after which a simple fusion in a black-lead crucible without fluxes gives a bullion 0.998 or 0.999 fine. If silenium or tellurium is present in the bullion, it will pass into solution witht he silver and be deposited with it by the copper plates. In this case the spongy silver will be dark colored and the metal will be brittle. It must then be fluxed with niter. The sulphate of copper is then carefully prepared for the market, the proceeds thus materially reducing the expense."

---

**(Metal Miner, Minneapolis.)**

### THE LEACHING OF COPPER ORE.

A recent issue of the Mining and Scientific Press (San Francisco) contained a very clever description of the methods pursued in leaching the copper ores at the Petosky mine in northern Arizona. The following is the article, almost entire:

"The ore in this mine occurs in a blanket vein and yields 12 per cent copper, two ounces silver and $1.80 gold per ton. The formation is siliceous, of volcanic origin, the copper occuring in green and blue corbonates, silicates and sulphides. Ordinary methods of leaching do not properly reach the silicate of copper, hence the special process employed at the new plant on the property. The method which has been resorted to consists in fine pulveri-

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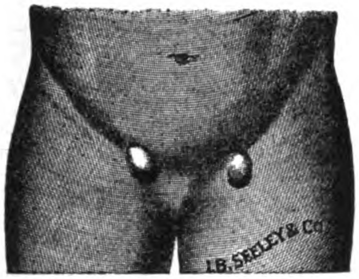
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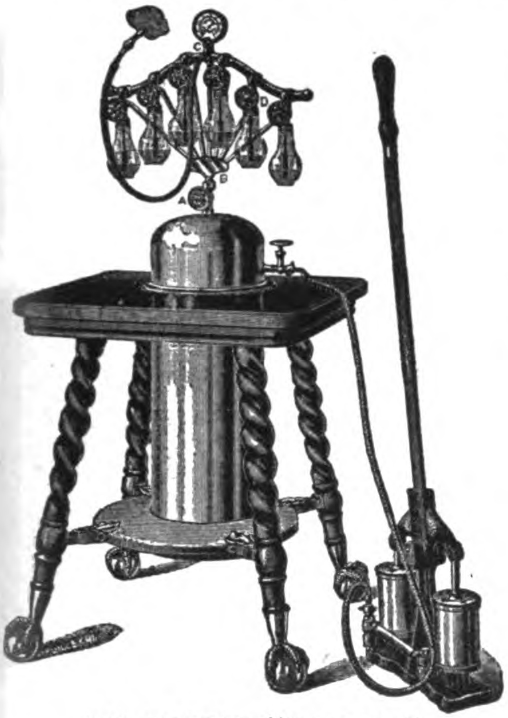

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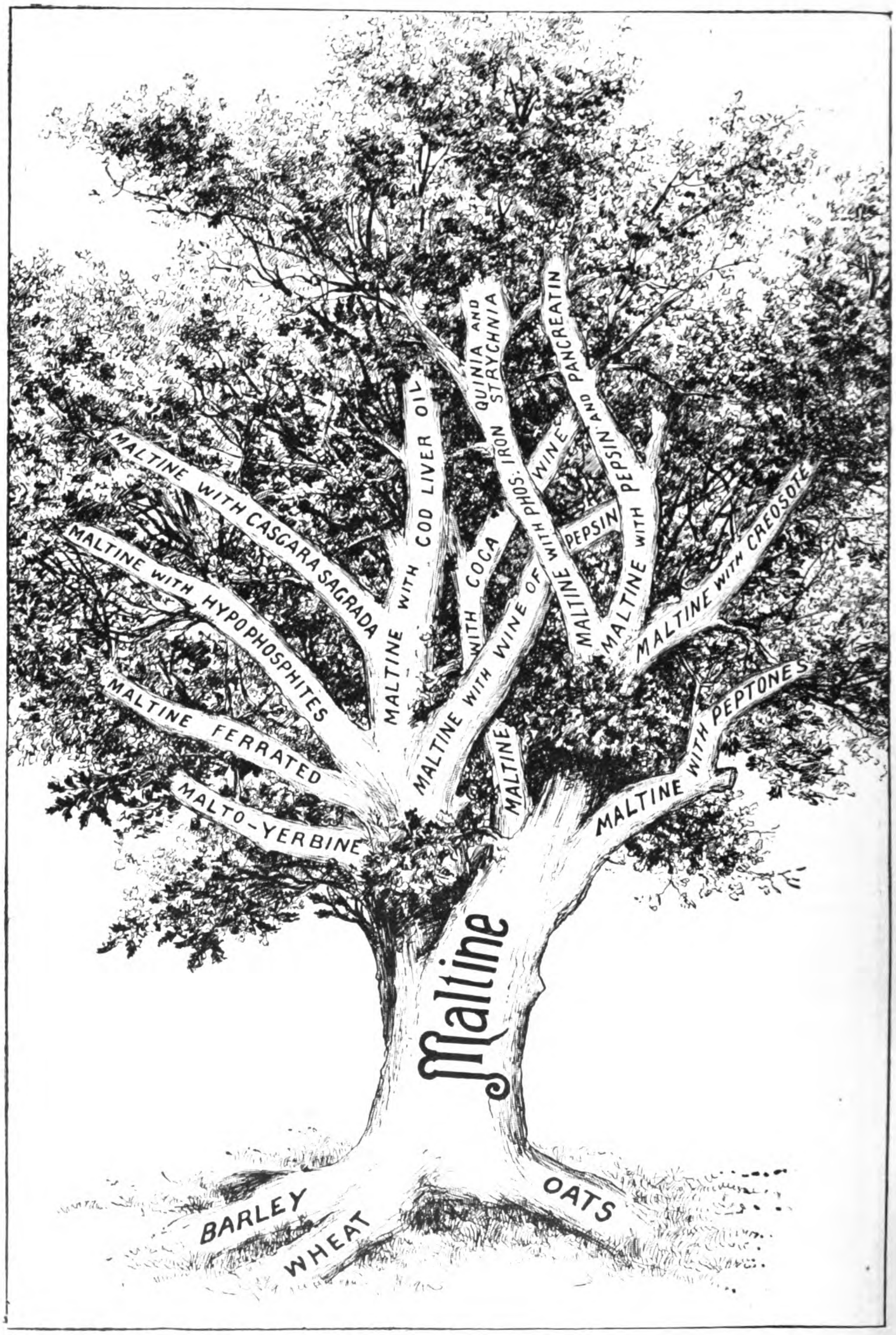
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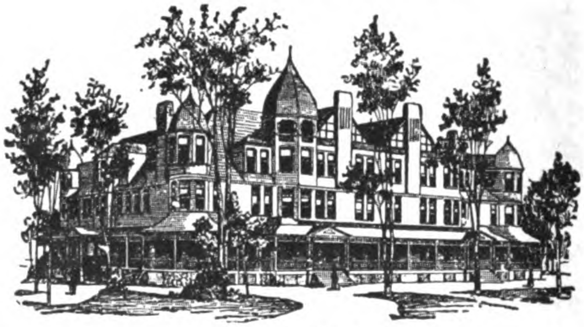

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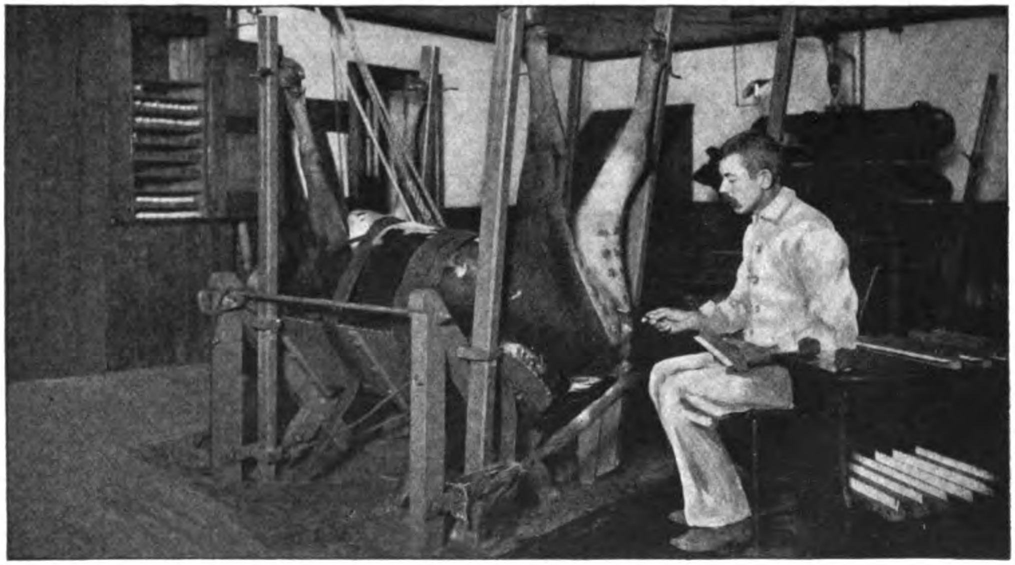

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MEDICAL DIAL

A Monthly Record of Medicine and Surgery.

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# ORIGINAL ARTICLES.

## THE RADICAL CURE OF FEMORAL HERNIA.

By Knut Hoegh, M. D., Minneapolis.

In considering the radical cure of hernia, a subject that at present strongly interests the medical profession, attention has been principally directed to the cure of the inguinal variety. In view of the much greater frequency of this hernia, and of the presumably more favorable conditions for a radical cure, it is easily understood why this should be so, but for certain reasons the cure of femoral hernia is even more desirable, and it offers fully as good a prognosis.

In the first place, a femoral hernia is much more dangerous to life than an inguinal hernia, on acount of the narrowness of the canal, the peculiar hour-glass shape of the sac, the frequency of omental and intestinal adhesions to the sac, and, finally, the proximity of the femoral vessels. The dangers to which the possessor of a femoral hernia is exposed are such that it is justifiable on that ground alone to urge operative interference. In the second place, femoral herniæ are often, you may say, usually, painful. This fact will of course incline the patient to seek relief, especially if he is informed that an operation can and will relieve him, without more danger than he runs by carrying his hernia. A last cause for urging operation is the fact that a truss is frequently inefficient, and very often so painful that it cannot be worn at all.

These conditions give the strongest possible reasons, not only for advising, but, even, for urging operation for radical cure. The objection will perhaps be raised that an operation is dangerous, that its immediate results are doubtful, and that the permanent results are still more uncertain. Let us consider the dangers first, and see wherein they consist. I suppose that they are principally the possibility of septic infection, injury to the great vessels, and injury to the contents of the sac. It is admitted that the proximity of the urinary and sexual outlets offers some difficulties in the way of complete disinfection of the operating field, and exposes the dressings to soiling, but, in our days of highly developed aseptic methods, this danger has no real significance, and may be considered as not existent for the accomplished operator, and nobody else has the right to undertake this operation. As for the large vessels, there is no need of injuring them, if the operator is thoroughly familiar with the anatomy and possesses a faultless technique. On the other hand the operation offers, compared with the operation for inguinal hernia, certain advantages of no small importance. There is no spermatic cord to injure or to compress by the formation of powerful scars or heavy muscular barriers, and no ectopic testicle to complicate the operation.

As to the second objection, that the operation often is useless, and shows itself so from the moment the patient leaves his bed, this fact depends exclusively on incomplete operation and faulty dissection.

The permanence of the cure has been so well established in several of my own operations, some of them reaching back six years, that this objection must fall to the ground. And, furthermore, even if the operation is followed by a relapse, I have no doubt that the patient is very materially benefitted, as he, after the ablation of adherent omentum and the loosening of agglutinated intestinal adhesions, is able to wear a truss that formerly was unendurable and even dangerous, threatening intestinal inflammation, obstruction and incarceration.

After a good operation the patient will, in even the worst cases, be able to have the protection of a truss, so that his hernia can be retained, thus removing the dangers of strangulation and enlargement of the hernia.

A femoral hernia differs in essential features from an inguinal hernia. Instead of a soft mass, which disappears under manipulation, and which is reduced with greater or less ease, as we find in the inguinal variety, there is usually in the inguinal fold, a small, elastic or pasty swelling, that in fat individuals may be difficult to isolate from the surrounding areolar fat. For, in contrast to an inguinal hernia, a femoral hernia is usually small, and shows only exceptionally a tendency to grow large with age. It complicates matters considerably that this hernia is difficult to reduce, and that it very often is impossible to do so completely.

As an illustration of the difficulty of diagnosis, even when the condition is suspected, I can relate a case where two well informed and experienced surgeons held opposite views as to the presence of a hernia in a rather fat individual; the operation disclosed a small, only partly reducible, omental hernia in the femoral canal. Besides this difficulty of diagnosis, and the usually small size, the painfulness is a very frequent feature of this variety.

I have had a case that several times had the diagnosis of recurring appendicitis given; the patient was a commercial traveler and carried heavy sample cases of cutlery. He had time and again been threatened with an operation for appendicitis when away from home, and only this circumstance prevented him from consenting to the operation; he was found to have a femoral hernia, with omental adhesions to the neck of the sac. After this conditon had been remedied by operation the attacks of pseudo-appendicitis disappeared.

In the greater number of cases the pains are nearly constant, but of unequal severity, ranging from mild "growlings" to severe agony; there are also cases with comparatively little pain and that only at intervals. It will be found as a rule that sufferers from femoral hernia derive less benefit from the use of trusses than those who have inguinal hernia; that the trusses do not securely close the canal, and that they cannot be worn on account of pain.

It will be readily admitted that strangulation is more rapid in femoral than in inguinal hernia, and that gangrene of the bowel takes place at a much earlier period. Furthermore, sufferers from femoral hernia have often very good and strong muscular walls, indicating a better prognosis as to the permanency of the cure. In the inguinal hernia we often meet with a laxity of the abdominal wall that will lead to a yielding of the scar, or bulging of the wall, no matter how carefully the canal itself is closed by our most elaborate methods.

Considering all these circumstances the proposition is maintained that every young and otherwise healthy person with a femoral hernia should be urged to undergo an operation for its radical cure, just as modern surgery urges the operative treatment for gall-stone disease, chronic appendicitis, and a number of other conditions that in themselves threaten with far greater dangers than the operation. The operation should not be advised for very old persons, nor those with some constitutional disease, subjects of nephritis, diabetes, emphysema, excessive obesity, diseases that are remarkably common in persons with large herniæ, consequently, oftener found with inguinal hernia. But it happens often enough that people suffering from these and other fatal diseases, or far advanced in years, get their hernia strangulated, and then operative interference becomes a necessity. Under such circumstances the operator may avail himself of the opportunity to perform the radical cure if the patient's condition justifies a somewhat prolonged operation, and if strangulation has not impaired the vitality of the bowel. I have successfully operated thus upon a woman of seventy, who called me to relieve strangulation.

The incision is made over the hernia, as dry as possible. Bleeding vessels are immediately secured, clamped and tied, if they are large. Several veins, the superficial circumflex iliac from the outside, the superficial epigastric from above, the superficial external pudic from the inside, empty into the long saphenous just before its enttrance, through the cribriform fascia—they must all be tied. The part of the sac outside this fascia is not always easy to isolate, for the sac is usually quite thin, and blends so intimately, especially in fat subjects, with the subcutaneous fat, that for this reason alone it may be difficult to dissect it out clean. Furthermore, it is often found lined with a layer of fat which may be difficult to distinguish from the omentum, as the later may be adherent to the sac.

The best practice is to isolate the sac at its emergence at the cribriform fascia, and mark it by forceps, so that it will not be lost during the dissection. It is advisable to dissect by clean cuts with scissors or knife, and not to tear or use blunt dissection. The operation is often terminated at this point, the sac opened, omentum liberated, and perhaps drawn out and resected, the sac cut off at the level of the cribiform fascia, and the superficial wound closed.

This is an incomplete process, only fit to bring discredit upon this operation, which is otherwise so beneficial. For, in crural hernia, the prolapse, consisting of the sac and its contents, has an hourglass shape; the lower enlargement, only, corresponding to the part below the cribriform fascia. By far the most important part is the one contained in the femoral canal that extends from the cribriform fascia to the peritoneal cavity proper, which has a length of from one quarter to one half inch. It is formed by the interval between the femoral vein and the fusion of the transversalis and the iliac fasciæ on the inside; its anterior wall consists of the transversalis fascia and the falciform process of fascia lata; the canal is in the healthy subject filled up with loose areolar fat, and exists as an open canal only where a hernia has forced the parts away from each other. It is in this deep and short canal that the really important, and it must be admitted, difficult part of the dissection has to take place; but it must be accomplished, as the operation, otherwise, will be incomplete and disappointing.

To make the dissection safe it is necessary to proceed with great deliberation, especially to dissect away from the femoral vein and secure every bleeding point. The anterior wall is split by scissors in a direction upwards, and a little inwards, and the sac is isolated. By pushing the finger into the sac, that already has been opened at the cribiform fascia, you may often find adhesions of intestine or omentum to the abdominal aspect of the canal, or to its neck. These adhesions are, of course, loosened, The bowel is pushed out of the way. If the omentum does not present itself, a finger is boldly thrust into the abdomen; it tries to hook down a portion of the omentum, and when this appears it is pulled down.

In this way a greater or smaller mass of omentum is produced outside the femoral canal. It may be an ounce or it may be very much more; so much is, in fact, taken as will easily come down without pulling intestines along. The apron of omentum is spread on aseptic sponges and tied off in sections, always using intertwining ligatures in pairs, and looking out for vessels.

After tying off a good sized omental plate, its edges are carefully inspected for bleeding points. If there are any, they are tied, but if the intertwining pairs of ligatures have been carefully placed, and the catguts secured by three knots (and less are not admissible for any intraabdominal ligatures), the omental stump is gradually pushed through the now quite well opened femoral canal. The precaution must be taken to leave so much stump below the ligatures that their slipping becomes impossible. For omental vessels contract but poorly, and intraabdominal hemorrhage would therefore be a formidable complication.

After a certain but ill-definable amount of traction on the dissected sac, it is gradually freed from its adhesions, and soon so much will be drawn outside of the canal that the part which borders the femoral ring will be free.

A blunt needle on a handle armed with a double catgut of heaviest size perforates this sac pedicle, the strands are made to cross each other and are tied with three knots; one pair is cut short and the other pair is brought around the whole stump and tied in the same manner. The stump is then cut off one quarter inch or a little more below the ligature, and pushed into the abdomen. It ought now to retract itself upwards, so that the funnel-shaped opening at the inner femoral ring is abolished. The object of resecting omentum is partly to diminish the intraabdominal pressure, that is to say, to produce more room in the abdomen, and, partly, to prevent fringes of omentum from worming themselves into whatever funnel may be left, producing adhesions and growing like a cucumber in a bottle. The object in pulling down the sac before it is tied is to efface every semblance of a hollow opposite the weak wall in the abdomen, through which abdominal contents might be pressed out by the action of the abdominal muscles, especially under efforts of lifting and other heavy work.

When the operation has been so far completed, it only remains to close the femoral canal. As this is very short, it is done by only a couple, or, at most, three heavy catgut sutures, that go from Poupart's ligament to the fascia lata. They must be carried from above downwards, or in the opposite direction, but, under no circumstances, from side to side, which would be to unduly endanger the femoral vein. They must be tied securely, but not too tightly.

If there is no hemorrhage, if the wound looks absolutely dry, drainage may appear superfluous, but, as a rule, it will be safer to leave a few strands of catgut in the lower end of the wound. The lower end is selected as it is farther from the sexual and urinary outlet, and easier to protect by the bandage.

To suture the superficial wound, it is best to apply a continuous hypodermic suture, which is made through the corium, but not through the epidermis. I use for this purpose a double silk thread which ends in a loop at the lower angle of the wound. When the parts are approximated by this suture, a heavy silver wire is passed through the silk loop. It is well clamped so that no projecting point may tear the derma, then the upper end of the thread is given a strong, quick pull and out comes the silk loop with the silver wire attached. This is pulled tight, thereby approximating the wound edges closely; sterilized silver foil is applied to the wound, and over it a pad of gauze over which the wire is bent with twisted ends. Outside of this comes a heavy padding of German gauze; then a cheesecloth bandage, and over it a layer of rubber tissue on the inner aspect of the thigh, to protect from urine.

Outside of this gauze bandage, I apply a bandage of wet highly-sized crinoline, which soon gets dry, and forms an excellent bandage, to give pressure and retain the heavier dressings.

If there is no bleeding, suppuration, or hemorrhage, no fever, and no pain, the bandage remains in place two weeks, when the silver wire is removed. The drain will be found absorbed, and all that is necessary is to apply one bandage more, which remains in place until the end of the twenty-first day, when the patient is allowed to get up. No bandage is worn after the consolidation of the wound.

The conclusion reached as a result of my experience with these cases, is that they are eminently fit for the radical cure; that they, unrelieved by operation, seriously handicap the patient; that they become rapidly dangerous to life, if subject to even slight inflammations, obstructions, or strangulations; that it is every physician's duty to urge operation in all those cases where a truss cannot be worn with efficiency and safety, that is, in an overwhelming majority of cases.

# CHLORETONE IN GENERAL PRACTICE.

By Harry F. Thompson, M. D., Buffalo Center, Iowa.

Chloretone ($C_4 H_7 O Cl_3$), a white crystalline compound of camphoraceous taste and odor, is formed when caustic potash is added to equal weights of chloroform and acetone, and is isolated from this mixture, after removing any excess of chloform and acetone, by distillation with steam. It is very soluble in chloroform, alcohol, acetone and ether; sparingly soluble in cold water and more soluble in boiling water.

Physiological observations and experimental research have proved that chloretone is a hypnotic, a local anesthetic and antiseptic, and is not depressant, in medicinal doses, to the circulation or respiration.

That it is a safe hypnotic is demonstrated by the history of a case reported by W. M. Donald, M. D., (Therap. Gaz. Jan'y 15, 1900). A patient, while under treatment for the morphine and alcohol habits, obtained a quantity of three-grain tablets of chloretone. He took, in all, 120 grains of chloretone in 24 hours, which produced profound sleep for several days. His condition was that of one under the influence of a general anesthetic of mild nature, an abscess upon his leg being opened without evidence of sensation on his part. From Monday morning when he first came under observation till Saturday morning, when he first regained full consciousness, no untoward symptom was noticed. The pulse, respiration and temperature were normal, except toward the last, when the temperature became slightly subnormal and the pulse irritable, from exhaustion. This man recovered completely from the effects of the chloretone.

My first experience with chloretone was in a case of peritonitis that had been treated with ordinary doses of morphine, hypodermatically, and pulvis opii by the mouth. When I first saw this woman, the stomach was extremely irritable, it being almost impossible for her to retain anything. Nine grains of chloretone, followed by a draught of hot water, relieved the condition almost immediately, and its continued use replaced the opium per os entirely, while single daily doses of morphine were now sufficient to control the pain.

Another patient whose husband, a hotelkeeper, was suffering from typhoid fever, was extremely "nervous." This condition, with the care of the hotel and worry about her husband, kept her from sleeping for several days and nights, whereupon I administered twelve grains of chloretone, followed by a draught of hot water. She fell asleep almost immediately, but was aroused later by a nurse and was unable to sleep again that night. On the following night the same dose was repeated and the nurse warned not to disturb the patient, which course resulted in a good night's sleep. Upon making inquiry for any untoward after-effects, next morning, she informed me she never felt better in her life. She took from twelve to fifteen grains, several times, during and after her husband's sickness, and never complained of any bad after-effect, nor was there any tendency toward the formation of a drug habit.

Two sisters-in-law of this woman, one married, the other a maiden of uncertain age, came from a distant state to assist in caring for their brother. Because of strange surroundings and great anxiety as to the outcome of the case, they were unable to sleep. They were finally persuaded to take chloretone, with a favorable result, and no bad after-effects.

Some time since I was called to attend a lady in her second confinement. I found a very anxious little woman, who, when I assured her that everything was all right, and that the baby would be born without much trouble, promptly informed me that she didn't believe it. Her first confinement resulted in an instrumental delivery of a badly marked, dead baby, and a severe laceration of the perineum. Having been informed that she had vomited several times before my arrival I administered ten grains of chloretone, about 3:30 A. M. About this time I began to give small amounts of chloroform, which kept the woman asleep except during the pains. At 8 A. M. I delivered her, instrumentally, of a girl baby, above the average in weight, and in spite of the mother's prediction both mother and child were all right.

There was a remarkable contrast between the depth of the anasthesia during the delivery, and the small amount of chloform used—less than an ounce and a half, during five hours.

L. J. Hirschman (N. Y. Med. Journal, Dec. 15, 1900), reports thirty cases in which he administered ten to fifteen grains of chloretone about half an hour before administering chloroform and ether, with a view of preventing nausea. He found by this procedure that the amount of the anesthetic was diminished from one-third to one-half. None of the patients were nauseated during the operation, and only ten per, cent were nauseated afterward. Only one vomited more than twice after coming out of the influence of the anesthetic.

I have used the drug in numerous cases for insomnia and irritable stomach, and in one case of pregnancy, and have had uniform success. Ten grains of chloretone, administered to a patient suffering from pseudo-angina-pectoris, produced sleep after the acute symptoms had been relieved by a single one-drop dose of the one-per-cent spirits of glonoin, U. S. P.

## QUININE AS AN ANTIPYRETIC.

By J. Hobart Egbert, A. M., M. D., Ph. D., Holyoke, Mass.

"Quinine is indisputably one of the most efficacious and reliable remedies in the whole list of drugs."—Nothnagel and Rossbach.

While quinine has long been known to possess a positive antipyretic action, and while widely administered in almost all forms of fevers—fevers with and without periodicity; fevers arising from acute inflammatory processes, and fevers unaccompanied by localized inflammation; fevers depending upon sepsis and fevers without sepsis—yet its use is largely empirical, and most clinicians would be unable to tell why they administered it in febrile disturbances (other, perhaps, than those of malarial origin) except to say that quinine is good in fevers generally—a statement, we admit, containing much of truth.

While the reduction of abnormally elevated bodily temperature by the administration of quinine does not always result from the same process of action in different diseases, still the antipyretic action of quinine is sufficiently positive and direct to admit of definite explanation. Quinine is a true anti-phlogistic, and hence an ideal antipyretic in most inflammatory conditions, but it is also antimiasmatic and antisapremic. Unlike other questionable antipyretics—vasomotor depressants—quinine does not depend primarily for antifebrile effect upon depressing the heart's action; in fact, it has a much less marked effect upon the action of the circulatory organs than it has upon the blood itself, and upon abnormal and deleterious substances in the blood.

Any discussion calculated to demonstrate the value of quinine (and the cinchonas) in the treatment of malarial fevers would be superfluous here. From the time the Countess de Cinchon, in the early part of the seventeenth century, brought the first news of the value of "quinquina" (cinchona bark) as a cure for intermittent fever to Europe, and the Jesuits made known its virtues in Italy—from that time to the present, its value in malarial fevers has been a recognized fact, it not only reducing the fever, but curing the disease. Of course there has been during the intervening years, some desire to know how the remedy acts. Civilized nations are always possessed of such curiosity. The natives of Peru to-day, as before the time of the Countess de Cinchon, make use of simple effusions of cinchona leaves and of the powdered bark for the relief of fevers, and are satisfied with the simple fact that they get the desired relief; but not so with civilized races. And so investigations have proceeded until, to-day, we can reason from cause to effect and from effect to cause.

In 1849 Buchheim and Engel observed that quinine checked the process of alcoholic fermentation, and a few years later Pasteur directed general attention to the significance of low organisms in fermenting infusions. Then Binz, in 1868, published an account of his earlier researches, showing that quinine restrains the growth and activity of protozoa, and in large amounts destroys their life. From this point to the discovery of the plasmodium malariæ in the blood of malarial patients, and its yielding to the administration of quinine, was but a step. Thus the anti-miasmatic action of quinine stands an indisputable fact, and its antipyretic action in malarial fevers is positive and direct, for it removes, or renders inactive, the condition from which the fever arises.

But quinine is antiseptic: not only antiseptic but anti-sapremic as well; not only destroying disease germs, but fortifying against the deleterious action which they induce by their presence within the economy. Ptomaines, leucomaines, and toxins yield, in greater or less degree, to quinine. Thus in fevers of the toxic or septicemic type quinine is a safe and valuable antipyretic, because it aims at the root of the disorder. In fact, in this type of fevers quinine plays a part second only to that which it fulfils in malarial fevers. It is not to be denied that in certain special forms of blood-poisoning there are definite indications for other remedies than quinine, but in the series as a whole quinine holds a permanent place as a reliable remedy; for whether in erysipelas or in puerperal fever, or in surgical pyemia, or in poisoning of the system by diphtheritic toxins, or any other infections specially connected with absorption of toxins from within or putrid matter from without, when once a certain gravity of organic disturbance is reached—when the fever is excessively high and the nervous system profoundly agitated and depressed—there is scarcely anything medicinal which offers the same chance of reducing pyrexia, relieving inflammatory complications, and sustaining the vital powers as moderately large and repeated doses of quinine. It is true that in this type of affections, as in others, the anti-pyretic action of quinine may be augmented, and before dismissing our subject we shall consider the synergists to quinine in this sphere; but in passing we would direct attention to the fact that in retarding the excessive combustion processes leading to the generation of abnormal heat, the action of quinine is greatly aided by the simultaneous administration of alcohol.

In the treatment of infectious fevers and general acute diseases the value of quinine will depend much upon special conditions; nevertheless, its use may be definitely called for in those septic infections which so frequently occur as complications—as the absorption of poisonous materials from the throat in scarlet fever and from the bowels in typhoid. Moreover special preparations of the cinchona group are available for good service in most of the acute fevers.

There are two most important diseases in which the antiphlogistic action of quinine may be particularly noted, viz.: lobar pneumonia and idiopathic peritonitis. In both these diseases quinine is antipyretic through antiphlogistic effect. It should be administered early, and in the earlier stages rather freely. Rational combinations, however, will greatly aid in obtaining good effects from moderate doses—a matter that will soon receive our more direct attention.

That quinine is possessed of anti-inflammatory properties is quite universally admitted. Indeed, it would be difficult to disprove a fact so patent to most observers, but not only do results give their evidence, but a scientific basis for the fact has been established, in that quinine checks multiplication and wandering of the leucocytes, thus mitigating inflammation and the tendency to pus formation. Hence, quinine is of particular value in most inflammatory diseases, especially those of the acute variety, and its use may be said to be contraindicated only by special peculiarities in the phenomena of the disease.

However, we do not recommend its promiscuous use, nor advise that it be given preference over other remedies, even in the treatment of the diseases mentioned. For example, in the first stage of pneumonia, while the cutaneous capillaries are contracted and the skin dry and hot, diaphoretic measures must not be neglected. We are here treating an active congestion rather than a condition of violent inflammation, and much can at once be done to modify the course of the disorder by measures which dilate the peripheral capillaries and promote activity of the excretions. In peritonitis we would strongly recommend the "quinine treatment" in preference to the more commonly employed "opium treatment." Excessive pain may demand the administration of opium or morphine, but cases in which the minimum amount of opiates is given recover, we believe, more quickly and in the best form—i. e., with fewer adhesions and other post-inflammatory sequelæ.

And now as to administration. In the first place, the value of heroic doses of quinine will become less and less apparent as attention is given to rendering more potent the action of moderate doses by rational methods and wise combinations. Doses of over 5 grn. (0.32 Gm.) for an adult are seldom called for, though at times this dose may well be repeated at frequent intervals. Under such dosing, cases of cinchonism will seldom be observed, and even when the indications demand pressing the drug, as in grave fevers of septic origin, the point of tolerance will be found to be further removed by the very exigency of the case.

Unless no other form of the drug is at command quinine pills should be tabooed. Quinine in capsules and in cachets is far preferable, while quinine in suspension or solution is even more regular and certain in desired action.

The activity of quinine, both as antimalarial and antipyretic, is augmented by combining it with aromatics, cholagogues, and moderate amounts of alcohol, and herein lies the secret of thefamous "Warburg's tincture."

The antipyretic action of quinine may further be augmented by combining or hol, and herein lies the secret of the famedies (1) which relax the peripheral capillaries, as powder of ipecac and opium; and (2) remedies which exert a definite antifebrile effect through action upon the nerve centers and vaso-motor system, as acetanilid, antipyrine, etc. In combining quinine with Dover's powder it may well be administered in capsules or cachets, and the constipating effect of the opium may be overcome by small doses of resin of podophyllum or calomel. In combining quinine with acetanilid—and this combination gives a most excellent antipyretic for use in the earlier stages of general inflammatory diseases—a fluid mixture is preferable. Of this the following is a good type:

Quinine Sulphate .... .. 1 dr.
Acetanilid (in fine powder). 1 dr.
Aromatic Elixir (or Elixir Calisaya).... .... .... .... 1 fl. oz.
Chocolate Syrup .. to make 4 fl. oz.
Dose: 1 to 2 teaspoonfuls.

Note—The syrup of chocolate should be heavy—similar to that drawn at soda-water fountains.

It has also been found that the action of small doses of quinine is augmented and sustained by combination with other cinchona alkaloids. The following combination is of particular value—3 grn. being equal in antiphlogistic and antipyretic effect to at least 2 grn. of quinine sulphate:

Quinine Sulphate .... .... .....
Cinchonine Sulphate.... .... ...
Cinchonidine Salicylate ..... ....
of each, 30 grn.

Mix. Divide in 30 capsules.—Dose: 1 to 3 capsules.

Note.—The powder should not be made into a mass, but after the ingredients have been well mixed together they should be put directly into the capsules, and the capsules weighed as made up.

In preparing this paper an endeavor has been made to promote a practical knowledge of the drug under consideration rather than to multiply theories. We have purposely omitted any quotation from "authorities," and append no bibliography. Our ideas have been obtained from many sources, but for the material of this discussion we have drawn from that great teacher, Experience; and the advices herein given are not mere dogmas, but, like the promises in the good old woman's Bible, may be marked "T. & P.," which, she said, meant, "tried and proven."

## NEW YORK ACADEMY OF MEDICINE.

### SECTION ON ORTHOPAEDIC SURGERY.

Meeting of Jan. 18, 1901.

George R. Elliot, M.D., Chairman.

Dr. Homer Gibney presented a girl age 17 years, tall, with a round back or posterior curve of adolescence of which he exhibited a tracing. He had applied the plaster jacket she now wore, only a few hours before, by placing her in the recumbent position, the body resting upon two uprights—one under the pelvis and the other under the point of greatest prominence of the back. Her head and shoulders were allowed to sag backwards and downwards. The position maintained, which caused the patient some suffering, was a marked over-correction. Another jacket would be applied later. The patient did not bear the operation well, on account of cardiac complication.

Dr. Henry Ling Taylor said he had not understood what diagnosis had been made, but the girl seemed unusually tall for the age assigned, and asked if the possibility of gigantism had been considered, as a marked round back was common in such conditions.

Dr. Royal Whitman said he was familiar with the history of the patient. She had some cardiac disease, was rickety, overgrown and badly nourished. He considered her condition merely the round spine of adolescence partly due to her height and heart weakness, and called attention to the patient showing lack of ordinary intelligence.

Dr. George R. Elliott asked Dr. Gibney how much force in pounds he had used to correct the deformity.

Dr. Gibney replied that little force beyond gravity was used, the sagging of the body between the supports appeared to give the necessary extension.

Dr. W. R. Townsend said that he had put up a case of spondylose rhizomelique last week in a much straightened position followed by a feeling of relief to the patient.

Dr. Taylor remarked that Kietley had described anterior crutches to hold the shoulders back, which would seem to answer the purpose of epaulettes as used in this jacket, without their disadvantages.

### EPICONDYLAR FRACTURE OF THE ELBOW.

Dr. Homer Gibney presented a small boy who had sustained a fracture of the elbow three months previously. The fracture was above the condyle. When the patient presented himself at the Hospital the elbow was fixed at an angle of 105 degrees with but little movement. The joint was cut down upon by Dr. V. P. Gibney and the detached fragment sutured into place.

Dr. V. P. Gibney said the epicondyle and nearly the entire condyle had been displaced, interfering with motion. He had cut down upon the joint and separated it with an osteotome, cleaned off the site of the fragment and pushed it down suturing with kangaroo tendon; he then put the arm in a straight position, left it for four or five weeks and then allowed active motion. Passive motion was not employed.

Dr. T. Halsted Meyers commented upon the excellent result and remarked that children were often allowed to go on with fracture at the elbow united in poor position in the belief that they would outgrow the disability in great degree, which was true, but it was better to correct the deformity entirely even resorting to open operation when necessary. He called attention to Dr. Lloyd's excellent reports.

### COXA VARA.

Dr. Townsend presented a boy age 14, with the history that three years ago, without apparent cause, began to limp and noticed that one leg was a little shorter than the other. The condition increased and he has had some pain. There was on inch of actual shortening. Radiographs were shown. He diagnosticated coxa vara of the ordinary type He said there were two points to note; one, good flexion and extension with little adduction; the other, the smaller size of the limb.

Dr. Townsend showed another skiagraph of a patient in which he had made the diagnosis sometime ago of coxa vara. In this case under observation for three years there had been a progressive shortening of about 1/8 to 1/4 inch each year, now amounting to 3/4 inch.

Dr. Whitman called attention to the importance of the limitation of motion, that although the patient still retained ten per cent. of abduction, there was an apparent shortening of two inches. This shortening and consequent disability was due to the limitation of abduction. This deformity might be overcome, after preliminary stretching of the contracted muscles, by a cuneiform osteotomy at the base of the trochanter which would reestablish the angle of the neck and thus relieve the strain upon it. He advised this operation in Dr. Townsend's patient though the best results were to be looked for in younger patients or at an earlier stage of the deformity.

Dr. Elliott asked Dr. Whitman how large a wedge of bone he would remove.

Dr. Whitman suggested cutting a paper model of the bone as shown in the skiagraph, and measuring on that the size of wedge to be cut out. He thought one with a base of 3/4 of one inch would be sufficient in the patient under discussion.

Dr. Elliott asked if the length of the limb would be much increased.

Dr. Whitman replied that the actual increase in length would be slight, possibly 1/2 inch; the important point was that there would be no apparent shortening because there would be complete relief of the limitation of motion which caused the apparent shortening.

Dr. Townsend said, he had performed the operation referred to by Dr. Whitman in two cases with good results and saw no reason why it should not be done in this case. In one patient, however, a little girl age 7 years, who had slight coxa vara, he had applied a traction splint and did not see in this particular case why it was not as good as the osteotomy advised by Dr. Whitman. He thought apparatus worn for a few years would give good results in the mild cases.

Dr. Meyers agreed with Dr. Townsend that it would be better in the beginning of these cases to use some sort of supporting apparatus that would not need bandage or plaster, thus avoiding pressure atrophy. He thought the Campbell brace especially adapted for such cases. It removed part or all of the body weight and was inconspicuous.

Dr. V. P. Gibney asked just what the Campbell brace was.

Dr. Myers illustrated it by a drawing showing it extending to the hip.

Dr. Gibney asked if the Campbell brace had always extended to the hip as drawn by Dr. Meyers.

Dr. Myers said that it had for the last eighteen years.

Dr. Taylor said that this brace reminded him of the Dow's brace which was valuable when it was desirable to use a perineal crutch and allow motion at the knee. He cited cases which had done well under the use of the hip splint, but could not give final results as the patients had not returned after treatment was discontinued. He had recently seen a case of coxa vara in consultation when four out of six surgeons consulted were in favor of the plint treatment.

Dr. Whitman did not favor the use of apparatus as a routine treatment, believing that after its discontinuance the distortion was likely to increase. The nutrition of the parts was likely to be lessened rather than increased by the use of braces. He had been disappointed in the final effect in cases in which apparatus had been used. Finally, braces could not rectify the deformity, at best would but relieve the symptoms and check progress. His operative results had been satisfactory. The patients after operation did not limp. Nearly all of his operative cases were between the ages of six and ten years.

Dr. Townsend asked if the boy in question would walk perfectly if the adduction were overcome.

Dr. Whitman said if there were no limitation of abduction, the boy would walk almost perfectly, whatever limp persisted would depend upon the actual shortening

Dr. Elliott wished to know what would be the prognosis if the case was left untreated.

Dr. Whitman replied that the patient would not get much worse, might get some better; as a rule, after the more acute symptoms had subsided the patients adapted themselves to the deformity and got along very well with a greater of less degree of limping. He stated that several of the German writers were apparently opposed to either mechanical or operative treatment.

Dr. Louis A. Weigel, of Rochester, N. Y., thought apparatus might be used to advantage in the earlier stages of coxa vara for the removal of superincumbent weight which is an etiological factor. He believed the difference in size of the femora as shown in the radiographs was due to a true atrophy or arrest of development. If coxa vara is due to defective nutrition, development of the affected side would be retarded.

## FRACTURE OF THE NECK OF THE FEMUR.

Dr. Townsend presented a man, 19 years of age who in December, 1899, fell a distance of 40 feet, striking on his hip. A diagnosis of contusion was made at the hospital to which he was taken, where he remained in bed six weeks, at end of which time he could not walk except with the aid of crutches. He came to hospital of Ruptured and Crippled in April, 1900, and a diagnosis of fracture of the neck of the femur was made. There was one inch of shortening, inversion of foot, crepitation at site of fracture when movements were made. Extreme pain and inability to bear weight on the limb or lift it from table when lying on his back. A long traction hip brace and a high shoe were applied and worn for six months. The man can now walk with little or no pain, and when lying on his back can raise his leg nearly as well as on the sound side. There is one inch of shortening, no crepitation at hip and all motions are possible without pain. Dr. Townsend thought traumatic coxa vara could be applied to this case.

Dr. Myers thought the case very encouraging. He had presented a similar case sometime ago where bony union had been secured after four months of non-union. In all cases of fracture of the neck of the femur, an earnest attempt to get bony union should be made. In recent cases even in old people with proper splints we would succeed many times. In old people where there had been fracture without real immobilization for many months the case was not hopeless under proper treatment.

Dr. Weigel exhibited a radiograph of an unusual deformity of the tibia and fibula, following a probable fracture during infancy. The mother had noticed a slight angle middle 1-3 of tibia when child was three months old. This had increased. The original fracture may have occurred in utero.

Dr. Weigel also presented a series of radiographs showing congenital absence of bones in members of the same family. In the five extremities shown, some bone of the hand or arm was absent. In one case, there was a rudimentary humerus, an imperfect thumb and three fingers. The mother had no thumb and gave a history of having borne twelve children, four of whom were deformed. The mother attributed her own deficiency to maternal impression, stating that her mother while pregnant was shocked by seeing a man at her house without a thumb.

Dr. Weigel exhibited another radiograph of a case of extensive osteomyelitis involving the whole of the tibia on one side. The patient had been treated for articular rheumatism. He thought it possible in most cases to make the differential diagnosis between marked suppuration and thickening or eburnation. When there is pus formation he stated that in a radiograph it is difficult to get a clear definition of bone structure on account of the osteoporotic condition usually present.

Dr. Weigel also exhibited a radiograph of a tubercular focus in a child's foot together with another radiograph taken two months later showing the repairative process already well under way. This patient was treated by fixation and rest, any radical surgical interference being contraindicated.

Dr. Townsend asked for a differential diagnosis between sarcoma of bone and osteomyelitis.

Dr. Weigel said that such a differential X-ray diagnosis might be difficult to make without an opportunity of comparing a series of cases.

Dr. Elliott showed a skiagraph of congenital dislocation of the hip which was taken after only fifteen seconds of exposure. The shortness of time exposure was important. With restless children long exposure was often impossible without an anaesthetic.

# CHINESE MATERIA MEDICA.

By Hon. Wm. E. S. Fales,

Formerly United States and French Consul at Amoy, China.

Thanks to the deep interest in Chinese matters induced by the war of 1894-1895 with Japan and the present revolutionary movement in the empire we have learned more of the details of Chinese daily life than was known to the western world prior to 1890. It is now possible to form a definite conception of the Chinese medical system, of its development and of the forces which have produced most of its extraordinary characteristics. From its literature we know that the druggist, using the term in its broadest sense, has been an active member of the Chinese community from the time of the Emperor Yu, B. C. 2200, or for a period of forty-one centuries.

## SOCIAL STATUS OF THE PHARMACIST.

During that time he has held a moderately high place in the social scale, which may be likened to the position held by the medieval herbalist or 'potecary.' There has never been any development of a pharmaceutic school system, nor any governmental interference with the exercise of his calling. The development of pharmacy, therefore, has been perfectly free from either educational or official influence. While this liberty possesses many theoretic advantages, it is likewise marked by serious defects. There being no government interference, unscrupulous men have slowly developed a system that corresponds to the old English guilds. The guilds, in order to protect their business and to prevent competition and intrusion by outsiders, have framed and built up fantastic theories and practices which are incomprehensible to the public and probably to themselves. The calling in the course of ages became institutionalized, unprogressive, conservative and then decadent. As an illustration it may be remarked that of the five hundred standard remdies and the five thousand permissable remedies not one is less than five hundred years old, and of all the new remedies that have been discovered by western nations in the past two centuries, not one has been adopted in Mongolian medicine.

In this slow process of development the law of natural selection has played a more or less important part and has by degrees brought into prominence such remedies as did possess some curative or beneficial qualities, and has thrown out of use many preparations which can be found in ancient books but never on modern shelves. Peppermint or menthol is a case in point. According to the Chinese record or legend its virtues were discovered by a wealthy farmer in Shantung three thousand years ago. It nas grown steadily in favor ever since and is to-day probably the most important article in the native pharmacopeia. In the course of time many methods were discovered of preparing and combining the substance so as to obtain different effects. Many of these are unknown to the public while a larger number belong to local guilds.

Among the known methods may be enumerated the following; First, the crushing and pressing of the fresh young leaves, which produces a very delicate greenish white oil; second, the crushing of the full grown leaves, which gives a light greenish brown oil; third, crushing of the over ripe leaves in the fall, which gives a rank brown oil with a very strong perfume; fourth, the maceration of the leaves with lard or other oils and the pressing and purifying of the resultant extract, which makes a very fine salve or ointment, fifth, the digestion of the leaf in very warm but not boiling water in closed vessels for several days at a time. This produces an aqueous extract similar to, but not much stronger than. the old-fashioned peppermint tea; sixth. the digestion of macerated leaves in wine or other alcoholic fluids and the subsequent pressing which gives a very pleasant tincture. These methods can be seen by any traveler. Others, which are trade secrets, produce forms of peppermint which are unknown to the western world. The more notable of these are a strong extract as thick as syrup; a brown peppermint jelly possessing a soothing character, a brown jelly possessing an irritating and calorific character; a greenish paste which is antiseptic and antiputrescent, and a greenish brown half solid extract.

At an early age the shells of the smaller mollusks and crustaceans were employed as medicaments. They were used raw and eaten whole, were pounded to powder or were cooked into a broth. The next stage was to roast or calcine the shells, which, according to the Chinese, increases their medicinal effect. As a matter of chemistry it merely produced a superior form of lime in excellent condition for administration; but, the guilds, knowing no chemistry, ascribed the new virtues to the treatment and invented methods which would explain it to the common people. Thus the shells, after being washed, and carefully dried, were wrapped in sheets of paper on which were then written talismans, and were then burned over special fires. The calcined shell was removed from the carbon and ash of the paper and pulverized in a mortar. The new qualities it possessed were charged to the talismans which had been written upon the wrappers. Nevertheless, in this way they learned by experience that a small oyster shell gave a very pure lime which made an excellent lime water, and that many species of the limpet family, which contained magnesia as well as lime, produced a lime which was of great benefit in cases of sour stomach, flatulency and gastric fermentation.

The primitive druggist took every lesson which nature taught, no matter how disgusting. He noticed that dogs when overfed used horse dung as a cathartic; that female cats ate the excrement of their kittens until they were weaned, undoubtedly to produce the same results. From this they drew the inference that animal excrementa had a medicinal quality, aperient, cathartic, or drastic, and used them accordingly. The favorite preparations to-day are goat's or dog's excrement for ordinary constipation, snake's excrement for infantile constipation, and pigeons' dung for women during pregnancy. All this is very revolting to an American observer, but we cannot in justice cast a stone, so long as our homeopathic friends employ similar remedies, not to speak of the crushed simex domestica and the pediculus humanus for ordinary ills.

The first large list of the Chinese pharmacopeia was compiled by Dr. Hobson and contained eighty animal, fifty mineral, and three hundred and twenty vegetable preparations. This was the best authority on the subject until 1876, when the Imperial Chinese Customs at the direction of Sir Robert Hart, compiled and sent to the Centennial Exposition at Philadelphia a large volume which contained the names of about six thousand medicaments. A careful investigation shows that many of these are substantially the same medicines as our own. Burnt paper is an exact equivalent of our charcoal tablets. Burnt paper, on which has been written a talisman with a red pencil, is the equivalent of a mixture of carbon and calomel, the red pencil being made of red mercury. The various preparations of opium correspond to our morphin, laudanum and paregoric. The deer horn and stag horn preparations seem very ridiculous at first sight, but when it is remembered that the digestion of horn produces glue, gelatin and jelly, and the distillation, ammonia, the absurdity disappears. Even today in our own country the average man and woman uses the old phrase spirits of "hartshorn" as much as he or she does ammonia. A large group of their remedies may be compared with our beef, iron and wine series. One is made by boiling rusty iron fillings, with wine and human or animal blood. A second, known as "three-testicle-wine," is produced by mincing the testicles of the tiger, bull and hog and digesting them in wine. Most gruesome of all is the medicine known as the Shu-Man-Tu, or Blood-bread. This is made by catching the blood of a beheaded man on a small ball made from dry vegetable pith. When the ball it saturated it is dried with great care, either in the hot sun or else in an oven. It is then wrapped in foil and tissue paper and is ready for use. The making is the perquisite of the executioner, who has standing contracts with the leading apothecaries of his district. A wholesale execution, like the one in Canton in 1890, when twenty-one pirates were decapitated in a few minutes, reaps him a golden harvest. A single man supplies enough blood to make ten "blood-breads," and each of these brings from one to two dollars apiece.

### PORTION OF THE HUMAN BODY USED.

In the Middle Ages our own people believed in the medicinal virtue of many parts of the dead human body. That belief exists in China to-day. A series of medicines are made from the remains of the dead, babies and women being preferred to men, men being in demand only for the testicles, and sometimes, though rarely, the liver. When, therefore, the Chinese accuse medical missionaries of buying and murdering babies to make medicine, they are simply charging the latter with what is done by their own practitioners. A small group of preparations is made from fossil bones and teeth. In many parts of the empire are large fossil beds, especially of the tertiary period, which contain the bones of the large carnivora and herbivora of that epoch. Some are in excellent preservation, but are so aged and weathered as to be calcareous sponges rather than solid bone. They crush easily without a mortar and pestle, and by special treatment can be brought into a form similar to our own acid phosphate of lime.

### SOME ODD ÇHINESE REMEDIES.

Odd remedies which have no parallel in our civilization are dried rats, which, when stewed or made into tea, are a specific for baldness and dandruff; boiled crab's liver with pine shavings for coughs, colds, and catarrhal complaints; a decotion of scorpions, including the sting, for cutaneous eruptions; wine and snake jelly, made by boiling snakes down to a gelatinous stage, for anemia and extreme emaciation. Human milk is sold in fair quantities as a tonic for old age and senile complaints. The women who supply the fluid train for the purpose and have breasts of astonishing length. By milking themselves regularly they can keep up the flow for two or three years or until they have another child.

Our use of clam broth is no novelty. The Chinese druggist has a trick of drying clams whereby they will keep for several years. When they are to be used they are steeped over night or for twenty-four hours in warm water, and then cut up and made into a broth. The broth is used for the same purposes as is our own.

### THE PERSONNEL OF CHINESE PHARMACY.

As to the personnel of the profession there is much less uniformity than with ours. In the great cities are distinguished apothecaries who stand at the head of their profession and who charge and get amazingly high prices for their goods. In the same cities are poor practitioners that sell at prices so low that the profits do not amount to $6 per month. They have their own trade troubles. Enterprising grocers conduct drug departments and sell at the low prices characteristic of their own calling. The same ginseng, which is the favorite tonic of the Empire, will bring a hundred dollars an ounce when sold by a fashionable apothecary and twenty dollars when sold by a grocer. At the treaty ports the Chinese have already learned the superiority of western pharmacy and are among its best patrons. The trade thus far has ben controlled by English and German professionals who have before them a more promising future than that which faces their colleagues in the western nations.—American Druggist.

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## SOME SUGGESTIONS ON THE MANNER OF USING PROTARGOL.

Having passed the experimental stage it may now be safely asserted, on the ground of the remarkably extensive literature published, that protargol is one of the most important additions to the materia medica of recent years. Aside from its general use in the treatment of gonorrheal affections it has to a great extent displaced nitrate of silver in diseases of the eye, ear, nose and throat. To obtain uniformly good results attention has been lately drawn to the importance of exercising proper care in making the solutions, a point which has been especially emphasized by Professor Neisser. A clear and satisfactory solution can be secured in any one of the following ways: Stir the protargol powder into a thick and smooth paste with a little cold water, and then add the bulk of the fluid. This should be done in a glass or china vessel, using a glass rod; if in a mortar, the latter as well as the pestle should be slightly moistened with a few drops of glycerine. Protargol may also be readily dissolved by dusting the powder evenly upon the surface of the water and allowing the fluid to stand without stirring for about ten minutes. It is very essential that only cold water should be used in making the solutions, as with warm water the drug is to some extent decomposed, and then becomes less active and may cause irritation; for the same reason the solutions should be preserved in dark colored yellow bottles. In acute gonorrhea the average strength of the solutions ranges from one to ten grains to the ounce; in chronic urethritis, up to thirty grains; in diseases of the eyes, ears, nose, and throat, ten to sixty grains; as an application to wounds and ulcers, one to two per cent solutions and five per cent ointments are in use. Unlike nitrate of silver protargol does not stain the skin even in concentrated solution. The solutions commonly employed in gonorrhea also do not produce stains of the clothing, or if they do, only cause slight discoloration, which can be easily removed with warm soap water. The much stronger solutions of twenty to fifty per cent sometimes leave behind brownish-yellow stains on the clothing; if recent, they can be removed with soda and ammonia; if old, by the action of peroxide of hydrogen in the presence of ammonia.

## MEDICAL AND OSTEOPATHIC BILLS KNOCKED OUT.

Two bills were brought before the state legislature a few days ago, Jepson's bill to cretae a new general medical board, and Horton's measure to establish a special board of osteopathic examiners. The contest is thus described by the Minneapolis Tribune:

"Senator Jepson called up his bill in committee of the whole during the forenoon, and explained its provisions in detail, claiming that it was eminently fair and broad.

"Senator Horton, who has been the avowed champion of the new school of healing, took issue forcibly, denouncing the measure as unfair and intended to perpetuate the old school doctors' trust in the state. He spared neither sarcasm or invective in his attack, and the situation became decidedly strained.

"Senator Greer, in his favorite role of peacemaker, introduced an amendment which looked as if it might afford a ground for compromise, and when the noon recess was taken both measures were made a special order for the afternoon immediately following the disposition of the apportionment bill.

"When the battle was renewed it soon developed that the Greer panacea was doomed to failure, for the senate voted it down without benefit of clergy, after Jepson had said he wanted his bill to live or die just as it was drawn.

"Then began a running fire of parliamentary tactics, in which many of the senators took part, and still the two measures were far apart. Motions to indefinitely postpone first one and then the other bill were defeated in quick succession, and the dust of combat thickened.

"Horton then started a continuous fire of amendments, some of which did execution and others missed fire, and it looked as if he were going to gain a partial victory by forcing Jepson to more fully recognize osteopathy, if he could not displace the latter's measure with his own.

"Meanwhile the rest of the senators seemed to be getting badly mixed as to the respective merits of the bills, voting first in favor of one and then of the other, and while the two champions were gathering their energies for a final and decisive struggle, Senator Johnson jumped into the arena with a big club and knocked them both out.

"He moved that the enacting clause of both bills be stricken out, and although senator Snyder tried to secure a division of the question, Senator Miller, in the chair, ruled against him, and the senate jumped at the chance to end the tiresome and inconclusive struggle. The motion carried with a whoop; and the status of the practice of medicine and osteopathy in the state of Minnesota remains unchanged."

The Charlotte Medical Journal informs us that "nearly one-half of the men and women of this country die when they are children."

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APRIL, 1901.

## SELF-LIMITED DISEASES.

Ever since the publication by Dr. Jacob Bigelow, of Boston, Mass., of his work with the above title, the list of diseases admitted to that class has been increasing, while, at the same time, the causes of disease have been more thoroughly investigated, and the means of prevention many times multiplied. When Dr. Bigelow gave his views to the profession it was generally understood that the ordinary contagious diseases of children, such as mumps, measles, and scarlet fever, run their regular course unmodified to any great extent by medical treatment; but when to these common and familiar attacks several others were added, the Doctor was vigorously assailed, not to say abused, at the time, by many physicians who feared the "Craft" was in danger by openly admitting so much that looked like the uselessness of the physician's aid in sickness; and when, a little later, Dr. Oliver Wendell Holmes remarked that "If all the drugs, as now used, were thrown into the sea, it would be all the better for mankind and the worse for the fishes," a prolonged howl went forth that has not yet ceased to vibrate; and those who wish to make the most of that utterance to the disparagement of the regular medical profession, usually leave out the qualifying clause, "as now used," when they quote. But physicians are still employed and medicines taken, probably more at the present time than ever before, as chemical processes have eliminated many of the most disagreeable and useless qualities, and made them attractive to the sight and pleasant to the taste. There is the same demand now as ever for the doctor "When pain and anguish wring the brow," and his power for assistance has been wonderfully increased by scientific knowledge gained during the last half century.

We do not now hear the well educated practitioner of medicine talk of aborting a cold, breaking up a fever, or cutting short an attack of pneumonia or pleurisy, by bleeding or other violent means; these diseases, in the main, are recognized as self-limited, though susceptible of relief to a considerable extent by judicious medical management and competent nursing. The germs of disease are now searched for by thousands of trained eyes, aided by the vastly improved optical instruments of modern construction, and their habits, toxines, and destructive products laid wide open for inspection and treatment by surgical and medical means, to their ultimate banishment it is to be hoped.

The fact that many diseases are known to be self-limited does not discourage investigation for their prevention. This is a wide field for observation, and well deserving of thorough and diligent cultivation. Although much has been accomplished during the last fifty years, by way of improved methods of sanitary arrangements for households, public buildings, and the streets of crowded cities, there is still a great demand for increased vigilance to even approach a moderate standard of excellence in the most advanced communities of civilization. Look, for instance, at the water supply of our cities; is it safe for general use without boiling? Vast sums of money have been expended by our large cities, and some of them have an abundance; but it is not a pure water for drinking purposes. If any filter will purify the river water that is contaminated by the drainage of large areas of cultivated grounds, villages, and numerous manufacturing institutions, then let the filter be prepared, and whatever the cost the value received will be seen and appreciated by an improved state of the general health of the community; but, if a filter, however expensive and elaborate in construction, is only a "snare and a delusion" for safety, as many believe, and as we think there is strong evidence for the fear, then search for some better way to secure a pure and safe supply, for we would like to see it gush out in abundance in every city and town as it does in the city of Rome, Italy, as it comes from the clean hills of the surrounding country. Millions of dollars are lavished on state buildings for the comfort of temporary occupants, and for the display of pride and prosperity; and it is well; but a closer scrutiny of the real necessities of the individuals should not be disregarded and lost to view. The strength of the man is in his general good physical condition, and the combined welfare of the city or community may be in proportion to its reputation for average good health. B.

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## CLEAN HANDS FOR THE SURGEON.

The surgeon, in spite of the wonderful advances of his art, has not yet learned to thoroughly cleanse his hands. Soap and water, the scrubbing brush, alcohol, bichloride solution, permanganate of potash, rubber gloves and protective disinfectant ointments have each and all been weighed in the balance and found wanting. A good scrubbing with soap and water and brush will rid the skin of the fatty matter which naturally belong to it, alcohol dissolves what is left, and a chemical disinfectant, such as bichloride of mercury, inhibits the growth of bacteria, so that hands thus prepared may be considered sterile; but, under the conditions which surround the operator, especially the high temperature of the room and the effect of mental strain upon his vasomotor system, perspiration, more or less profuse, takes place, and the sweat, coming from the deeper portions of the skin, is not sterile. This has been demonstrated by laboratory experiments. Scrapings from the skin and from under the nails of freshly cleaned hands may fail to give cultures; sterile silk threads between the firmly closed finger and the thumb may remain sterile. But let these hands work for a few minutes, and perspire, it will then be found that scrapings from them will produce cultures, and a sterile silk thread drawn between the finger and thumb, will become infected. In view of the impossibility of thoroughly sterilizing the skin various devices have been resorted to in order to keep the skin of the operator's hands from touching the wound. Rubber gloves have been in favor, then discarded, and again resorted to. They have the advantage of being easily cleansed and if quite thin and closely fitting they interfere but slightly with the sense of touch. But they have this serious disadvantage, the hands perspire freely within them, and, should the gloves, during the operation, become torn or punctured the danger of contamination is great.

Elastic varnishes have been recommended but they have the same disadvantages as rubber gloves. König avoids touching the wound as far as possible, finds it practicable in many operations to allow nothing but instruments and sponges to touch the wound. For the present the wisest course to pursue would appear to be:

1. Look upon the skin of the hands as the most difficult of all structures to render sterile.

2. Cleanse with soap, water and brush, alcohol and chemical disinfectants.

3. Wear thin, closely fitting, rubber gloves which have been carefully sterilized.

4. If gloves are not worn rinse the hands in bichloride at frequent intervals during the operation, and then, in sterile water, to get rid of the irritating antiseptic. M.

## WATER FILTRATION AND TYPHOID AT ASHLAND.

According to reports in the daily press a terrible condition of affairs exists at Ashland, Wis. The city is supplied from Lake Superior, the largest, coldest and purest body of fresh water on the globe. Unfortunately gross carelessness is at the bottom of the present trouble, whereby the hospitals are filled with typhoid cases, as also a large proportion of the dwellings, and by last accounts more than thirty deaths have occurred. The intake pipe is in close proximity to the point at which the main sewers empty their contents into the lake. A sand filter bed has been in use for the past three years, but during that period the sand has not once been changed. An ex-engineer of the filter company is quoted as saying that for some time past the workmen have dug holes in the sand to let the water pass through, and that the filters were so clogged with sediment that the digging of holes was absolutely necessary for the passage of the water. An examination of the sand taken from this vile filter was made by Dr. H. L. Russell of the Univeristy of Wisconsin, who says, in his report:

"White rats were also inoculated with broth cultures made from the respective samples of sand. The rats inoculated with scraped sand died in twenty-four hours."

The experience of Ashland should be a warning to other municipalities. No question is so important, and none so neglected as water supply for drinking and culinary purposes. A sand filter is all right as far as it goes, but when it is allowed to collect the filth of years it becomes intolerably dirty and a most dangerous source of disease.

The disastrous experience of Ashland should spur our own city authorities on to immediate action in securing a first class filtering plant for Minneapolis. Negotiations are in progress with the Jewel Filtering Company and the success which has followed the adoption of this system in other cities will, we trust, be repeated here.

The military authorities succeeded in stamping small-pox out of Porto Rico last year, 800,000 vaccinations being made in less than three months.

A philanthropic French lady, Mlle. de Noualhier, has a hobby for caring for consumptives in the last stages, found in Paris, from which city she has them taken to a villa in Limoges not far away, to be eased in their last moments. The residents of the town are up in arms against the innovation because of the fact that several new cases have appeared among the townspeople, presumably originating from the patients taken there by the good lady. She works only among destitute consumptives, taking them to her chateau, where they are cared for and buried at her expense. She began her work some five years ago.

Hospital patients and their friends are sometimes not only ungrateful but unreasonable. The parents of a young man from Iowa, who has been confined to the City Hospital for three weeks, recently made quite a fuss because it was reported that money sent him had not been turned over by the hospital authorities. The money was duly received and, as is the custom in most institutions of the kind, was placed in the hospital safe until the patient was discharged, when it was delivered to him. Quite a little explanation was necessary to convince the friends of the groundlessness of their suspicions.

Probably the smallest monarch in the world reigns over the Hindu vassal state of Bhopaul, and governs a people of more than 1,000,000 souls. This dwarf is a woman, Djihan Begum by name, but although she is about 50 years old, she does not appear larger than a child of 10.

The oldest physician in the world, probably, is Dr. Gallus Ritter von Hochberger of Carlsbad, who holds the important position of imperial and royal counsellor of the Austrian Court. He is still a practising physician at the age of 97 and can look back over seventy-one years of professional life.

The Western Opthalmologic and Oto-Laryngologic Association will meet at Cincinnati April 11 and 12. Dr. Christian R. Holmes is chairman of the local committee of arrangements and Dr. W. L. Ballenger, of Chicago, is secretary of the association.

Dr. Gustavus Blech has been appointed professor of casualty surgery in the James Medical College. This is the first institution in the west to establish a chair for this branch of practical surgery and medicine.

News has been received at Vermillion, S. D., that Dr. F. W. Cox, late assistant surgeon of the First South Dakota regiment, will be appointed surgeon with the rank of captain under the new army bill.

Dr. Henry A. Beaudoux, Fargo, N. D., has been appointed oculist and aurist of the divisions of the Northern Pacific railways which end in Fargo. His territory extends from Mandan to St. Paul.

There will probably be objections raised to the statement by Dr. J. W. Andrews, of Mankato, in his paper on "Topical Application in Gynecological Practice; their Use and Abuse," in the Western Medical Review for March, where he says in conclusion that he believes "there is no longer a legitimate field for the gynecologist. There is no reason why a good surgeon who can operate well in the abdominal organs should not operate equally well on the pelvic organs. There is no reason why the general practitioner cannot treat catarrh of the cervix, when it exists, as well as he can catarrh of the throat, and let us hope that the routine topical applications in gynecological practice may be relegated to the mistakes of the nineteenth century."

In a bill introduced in the Illinois legislature, the use of the title M. D., or Dr., by those who have not first obtained a license to practice under the laws of the state, is prohibited.

A mosquito gets its growth in a short time. It is fully developed and equipped for business in three weeks.

There are now about seventy crematories in Europe and the United States.

In a treatise on "Insanity in Women Associated with Pelvic Diseases, Dr. W. O. Henry, of Omaha, in his concluding remarks (Western Medical Review, March, 1901,) says: "I am sure that in all cases of insanity in women, a careful and thorough examination of the pelvic organs should be made, and all lesions corrected as an important curative measure. Also, that the general practitioner into whose hands these patients usually first come, should be fully alive to the frequent cause of pelvic disorders as a source of the mental disturbance. And, finally, the general practitioner can do much towards preventing insanity in women by insisting that women with pelvic diseases have them cured early."

The Los Angeles Herald has the following story of the Scotchman who on his return to his native heath from "Lunnon" described his sensations during his first oratorio. He said in part (as the clergy are quoted on Sunday):

"Aw, yiss, Tonald, I went to the oratory, but syne I thocht it was safer to come awa'."

"How was that?" inquires Donald.

"Weel, ye see, first one man in the crowd up and shouted: 'I am the king of glory,' then another cried out that he was the king of glory, and pretty soon they were all yelling at once that they were the king of glory. So I saw there was going to be a row and just slipped out."

The general treatment of acute abscess is the same as that for acute inflammation. As soon as convalescence begins, nourishing diet, fresh air, stimulants, etc., are necessary.—Cheyne and Burghard.

## SHORTENING THE MEDICAL COURSE AT THE UNIVERSITY OF PENNSYLVANIA.

Provost Harrison of the University of Pennsylvania in his annual report recently published has announced a readjustment of the studies required of students for the degree of doctor of medicine, by which they may complete the course in arts or science and get the medical degree in seven years. By pursuing the plan outlined, the course in medicine is made three instead of four years. The plan provides that, under certain conditions, a senior in college may be a freshman in the medical school.—Med. Record.

[We cannot see that this arrangement shortens the period of Medical Study. It cannot be questioned that a four year course in arts or science is a better foundation than a freshman year under ordinary conditions.—Ed.]

## CHRISTIAN SCIENCE BARRED IN INDIANA.

The legislature of Indiana, just before adjournment, acted on Senator Wood's medical bill, which makes it unlawful for christian scientists and Dowieites to engage in healing or treating patients, without examination by the State Medical board.

## ARE THE BABIES TWINS.

Two children of the same mother were born in a village in Warren County, New York, one a few minutes before midnight December 31st, 1900, the other a few minutes past 12 o'clock on the morning of Jan. 1st, 1901. A controversy has arisen among the townspeople whether the boys should be considered twins or simply brothers, and when the birthday should be celebrated. Under ordinary circumstances their twinship would be incontestable but the question becomes complicated when it is considered that they were not only born on different days, months and years, but one in the nineteenth and the other in the twentieth century.

## WANT SEPARATE STATE CONTROL.

Through its president, Jay Cooke Howard of Duluth, the Minnesota Association of the deaf has sent the following memorial to the house and senate committees having in charge the board of control bill, and also to the governor:

"The question of a change in the administration of the state institutions of Minnesota is before the legislature. It is proposed to establish a single board of control to manage all the institutions in place of the local boards and the state board of corrections and charities, which have conducted the institutions for so many years in a manner most creditable to the state.

"The deaf people of the state have a deep and personal interest in one of the state institutions—the school for the deaf at Faribault—and they think that it is a fitting time for them to prefer a request for a separate consideration and management of that school.

"The Minesota school for the deaf, as well as the school for the blind, is wholly educational in character. Children are admitted to these schools at the age of eight; they are given a course of instruction embracing eight or ten years, and they are then sent forth to take their place as self-supporting citizens of the state. There is no custodial or reformatory feature in either school.

"The Minnesota school for the deaf has been in existence for nearly forty years, and not one of its regular graduates has ever been an inmate of one of the state's penal or reformatory institutions, nor has one ever been an inmate of an almshouse.

"Recently a gentleman appeared before the legislative committee that is considering the advisability of a board of control, and in the course of his remarks in favor of such a board he said that the object of the state institutions was the prevention of pauperism and crime. This statement shows how wholly he is uninformed as to the nature and work of at least two of the state institutions—the school for the deaf and the school for the blind. However true his statement may be as to some of the institutions, it is unjust and untrue when applied to these two schools. The boys and girls who attend the school for the deaf and the school for the blind are children of honest taxpayers and citizens of the state. The accident of deafness or blindness prevents them from receiving in the common schools of the state the education to which they are entitled. To provide special education for them in their home districts would entail too great expense upon the state. Therefore central institutions have been established, wherein the children are gathered, and where they are instructed by methods adapted to their needs. To place these school children in the same category with the pauper, the criminal, the imbecile and the insane and to assume that the same general management can be applied to them as to others, places an undeserved stigma upon them and upon their parents, and it is this stigma which we pray to have removed.

"Educating the deaf is a special work, requiring special methods of instruction and the employment of officers and teachers specially qualified for such work. Therefore a rule of management, expenditure and compensation that is applied to penal and custodial institutions for adults, in which the educational feature is wanting, cannot be applied to the school for the deaf or to the school for the blind without seriously impairing their efficiency.

"A board of control, having a considerable number of state institutions to inspect and provide for, could not give the special attention to the School for the Deaf and the School for the Blind that they need. During occasional brief visits the members of the board could not be expected to become conversant with the special educational features of the schools, and to recognize that a different standard of management and expenditure is required.

"The Minnesota school for the deaf has been for nearly forty years under a local board and the state board of corrections and charities. During these years the school has worked its way to the front rank of institutions of the kind in America. The work of its teachers is everywhere recognized as a standard of excellence, and its graduates, in intellectual ability and material success, stand among the best. This enviable position has been attained by the adoption of the best methods and by the employment of the most capable instructors through the payment of salaries adequate for the acquisition and retention of such instructors.

"The educated deaf of the state feel a deep and abiding interest in the welfare of the school wherein they received their education. Most earnestly would they deprecate any change that would impair its efficiency. They feel that the school for the deaf, as an educational institution, is entitled to recognition and consideration apart from the penal and custodial institutions. And above all they wish for release from a classification which places them in the same category with the pauper, the criminal, the imbecile and the insane.

To this end the Minnesota Association of the Deaf, an organization consisting of the educated deaf, incorporated under the laws of Minnesota, presents this memorial and prays for favorable action in the premises, so that, if a board of control is provided for other state institutions the school for the deaf and school for the blind may remain under the management of a separate board, as in the case of the state university and the normal schools, as is just and right in view of their nature and work as educational institutions."

—Jay Cooke Howard, President.

## TUBERCULAR CYSTITIS TREATED BY PERMANENT SUPRAPUBIC DRAINAGE.

At the New York Surgical Society meeting Nov. 28th (Annals of Surgery, March), Dr. F. W. Murray presented a man, forty years of age, who was admitted to the New York Hospital in July, 1898. Family history excellent. Personal history good until 1886, when hæmaturia suddenly appeared and lasted for three weeks. The blood was in large amount, sometimes bright red, but more frequently was passed in dark clots, no increase of or pain on micturition. The blood gradually disappeared, and the patient was quite anæmic for some months afterwards. In 1889, a second attack came on suddenly and lasted for ten days, but was less severe. For the next seven year, i.e., up to 1896, the patient was in good condition, but blood in small quantities appeared at intervals in his urine. In 1896, blood appeared in the urine in considerable quantity, and continued in varying amounts. Frequency of micturition soon began, and became a most annoying symptom; it was accompanied with considerable pain. The bladder had to be emptied every twenty to thirty minutes, and if the patient was moving around he could not hold his water longer than ten minutes. At times vesical tenesmus was intense. The nights were as bad as the days; the pain and frequency of micturition were not diminished, and the patient's sleep was continually broken. As a result of his suffering, he became weak, anæmic, was compelled to give up his work and, owing to the pain, caused by either riding or walking, he spent most of his time in bed. On admission to the hospital, examination revealed enlargement and tenderness in each epididymis, enlarged and tender prostate, inguinal glands enlarged on right side. No attempt was made to examine bladder, as pain rendered it impossible. Urine, acid; specific gravity, 1012; yellowish-red, large amount of blood-stained sediment, which contained many red, white cells, epithelium, some mucus. Tubercle bacilli present. Temperature, 103° F., pulse, 110. Patient had lost fifty pounds in past two years.

July 16 suprapubic cystotomy was done. The bladder walls were found immensely thickened, especially the posterior portion; the base of the bladder was extensively ulcerated, and at the mouth of the left ureter was found a small papillomatous growth. The capacity of the bladder was about one and one-half ounces. The growth was removed with scissors, the interior of the bladder thoroughly curetted and irrigated with diluted Thiersch solution, a 28 French soft rubber catheter was introduced into the bladder, which was then packed with iodoform gauze to control the excessive bleeding. The following day the packing was removed, and suprapubic drainage, according to Dawbarn's method, was instituted. The post-operative history was that of steady improvement, the patient had good nights, was free from pain, and commenced to gain strength. The urine lost its red color, but remained turbid, with copious sediment of mucus, pus; this gradually disappeared under daily irrigations. On the twenty-second day after operation he left the hospital, wearing a tube which connected with a rubber bottle strapped to the leg. There was some leakage at first from the wound around the tube, but in a few weeks he was perfectly dry at all times and entirely free from any urinary odor. His condition remained satisfactory until January, 1900, when, owing to the contraction of the wound, he was compelled to wear a tube which was too small for satisfactory drainage. At times water passed by the uretha, and was accompanied with tenesmus, and the urine became ammoniacal. In February he entered St. Luke's Hospital, where the wound was enlarged, the bladder again curetted and several small phosphatic calculi were removed. In order to prevent future contraction of the opening in his bladder a silver catheter, the size of 28 French, was substituted for the rubber one. This caused so much pain that it was removed, and a hard rubber of the same size suitably curved was substituted with perfect success. The patient now wears this hard rubber tube, which is fastened to a hard rubber shield fitting over the site of the wound and fastened by a belt around the body. A soft rubber tube fits snugly over the end of the hard rubber tube and conducts the urine to the rubber urinal fastened to the thigh. This arrangement works most satisfactorily; the patient is perfectly dry, is free from any urinary odor, and is able to attend to his professional duties. The epididymes are smaller and no longer tender, the prostate is smaller, free from pain or pressure, and the enlarged inguinal glands have disappeared. His general health is excellent; he has gained forty-four pounds since July, 1898, and enjoys life. The case is not presented as a cure, but merely to show that at times surgical treatment may be very successful.

The patient previous to coming under the care of the speaker had consulted many of the leading genito-urinary specialists in this city, and they, one and all, advised strongly against operative measures. He had operated not with any idea of getting a good result, but merely to relieve the patient of the constant pain which was wearing him out. The case was one of primary tuberculous cystitis of the bladder, as, from his statements, the vesical symptoms antedated the enlargements of the prostate and epididymis, and there have been no symptoms of kidney involvement. He did not advocate suprapubic drainage in all cases of tuberculous cystitis, but he took exception to the attitude of many genito-urinary specialists, who condemn any operative interference in these cases, and advise simply change of air, wearing of flannel next to the skin, etc. He added that the patient had taken for several years large doses of creosote, and any benefit which may be ascribed to this remedy began after his operation, as before that time he was steadily growing worse.

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## NOT CONTAGIOUS.

A pretty teacher in a country school had a profound dread of small-pox and was most energetic in backing up the efforts of the local board of health. It came to her ears that the mother of one of her pupils was confined to bed with a mysterious disease and at once jumping to the conclusion that it was small-pox. She put the pupil through a rigid cross questioning but without obtaining from her any information as to the nature of the illness. She then sent the child home with positive instructions to find out the nature of the disease and equally positive orders to remain at home should the malady prove to be contagious.

Next morning the little girl appeared among her classmates, the teacher observing her exclaimed: "Jenny Thomson, are you here again, hasn't your mother got the small-pox?"

"If you please mam," said Jenny, "ma mither says its a boy, but its no catchin' if you're careful."

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A convalescent hospital is about to be established in the Philippines. It is to be located at Beago de la Trinidad, near Manila, about 4,700 feet above sea level, the thermometer never rising above 75° in the daytime, the nights being cool and exhilarating.

# BOOK NOTICES.

ANNUAL AND ANALYTICAL CYCLOPÆDIA OF PRACTICAL MEDICINE. By Charles E. de M. Sajous, M. D., and One Hundred Associate Editors, assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps. Vol. VI. Philadelphia, New York and Chicago: F. A. Davis Company.

The sixth volume, and the last of the first series, is at hand and maintains the high standard for excellence noted in the previous numbers. It includes subjects from R to Z, and the editors have very carefully treated them according to the latest practical knowledge of medical and surgical science. Where all is so good it would be useless to particularize, as the book will be thoroughly perused by those seeking information for authority, or guides to follow in their treatment of diseases. Some subjects have been introduced into the work that were not promised in the first preface, and at that time the editors expected to eliminate for want of space, such as deaf-mutism, eclampsia, menopause, hypnotism, hysteria, etc., all of which add to the practical value of the work, and will be found useful for ready reference. We can cheerfully and strongly recommend the whole series to the profession as a reliable and satisfactory work.

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AN AMERICAN TEXT-BOOK OF DISEASES OF THE EYE, EAR, NOSE AND THROAT. Edited by G. E. de Schweinitz, A.M., M.D., Professor of Opthalmology in the Jefferson Medical College, Philadelphia; Consulting Ophthalmologist to the Philadlphia Polyclinic; Ophthalmic Surgeon to the Philadelphia Hospital and to the Orthopedic Hospital and Infirmary for Nervous Diseases; and B. Alex. Randall, M. A., M. D., Ph. D., Clinical Professor of Diseases of the Ear in the University of Pennsylvania, Professor of Diseases of the Ear in the Philadelphia Polyclinic, etc., Illustrated with 766 Engravings, 59 of them in Colors. W. B. Saunders & Co., Philadelphia and London. Price cloth $5.00 net; half morocco $8.00 net.

This excellent work takes its place honorably in the series of text-books published by Saunders and Company. The specialist knows a good thing when he sees it and will not neglect to place the book among his standard works. To the general practitioner we heartily recommend the work as a safe and comprehensive reference book in the four special subjects of which it treats. The family physician cannot always consult a specialist nor can every patient afford to take a long pilgrimage to a medical center to secure the services of a specialist. It is the duty therefore of every man who enjoys a general practice to have a fair working knowledge of the diseases and injuries of the eye, the ear, the nose and the throat and nowhere can he find more useful reading than in tne work before us, which deals with every phase of the subject from the embryology of the organs in question to the minutest detail of symptomatology and treatment.

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PRACTICAL MANUAL OF DISEASES OF WOMEN AND UTERINE THERAPEUTICS, for Students and Practitioners. By H. Macnaughton-Jones, M. D., M. CH. Master of Obstetrics (Honoris Causæ), Royal University of Ireland; Fellow of the Royal Colleges of Surgeons of Ireland and Edinburgh; President of the British Gynæcological Society; Formerly University Professor of Midwifery and diseases of women and children and examiner in midwifery and diseases of women and children in the Royal University of Ireland. Eighth Edition, Revised and Enlarged with 640 ilustrations and 28 plates. London: Bailliere, Tindall and Cox (Paris and Madrid) New York: William Wood & Company.

This is an excellent and most comprehensive work, accurate in its statements and clear in its details. It gives the latest results of scientific investigation in every department; presents the most approved methods of the various surgical operations, and the best course of treatment. On every subject in this department of medicine, it gives most valuable information and practical directions. Students and physicians will find this a reliable book of reference, a valuable aid in practice, and interesting in all points of scientific research.

In the first chapter is "A Summary of Anatomical Facts which has a bearing on gynaecological practice;" every point of which is of great practical importance. On page 29 the author, speaking of "Ovulation and Menstruation," says: "To comprehend any deviation from a normal and healthy act of nutrition of any organ, we must clearly understand the processes involved in the normal discharge of its functions, and the anatomical and histological facts bearing on the act of nutrition from its incipient stage to its completion."

In chapters 2nd and 3rd (62 pages) are given full and practical directions in regard to the examination of cases. After which comes the important subject of "Asepsis and Antisepsis in Gynaecological Surgery." "Here economy," says the author, "has seldom to be considered. It is simply unpardonable if any accident occurs which can by possibility be traced to a flaw in the methods. * * * Antisepsis before, and asepsis during an operation, should be secured by methodical and systematic precautions never departed from."

In the next chapter is given a most interesting review and practical directions in regard to "Minor Gynaecological operations;" each page containing most valuable information. Of "Curettage," he says: "The value of curettage of the Uterus as a therapeutical step in diseased conditions of the endometrium cannot be too strongly insisted upon,—in chronic endometritis, in fungosities in the cavity of the body, follicular degeneration of the endometrium, etc., etc. Many of these states are attended with persistent or recurring hemorrhage. Properly conducted curettage has superceded in my practice all that tedious and unsatisfactory medication of unhealthy states of the endometrium.

In chapters 7th, 8th and 9th is presented the abstruse and difficult subject: "Disorders of Menstruation." To understand which fully we must know more of the minute anatomy of the organs of generation. The author says on page 196, "of all terms used in gynaecology, this one leucorrhoea is employed in the loosest and most misleading manner both by student and practitioner."

Ninety-four pages are devoted to the important subjects of "Uterine Displacements," and their various means of prevention and cure. Here again a volume of information is given.

Chapter 15th, "Lacerations of the cervix." The author says: "They result most frequently from manual and instrumental interference; that in these rapid labors in which delivery is precipitated, such rents are apt to occur."

Still is not the true cause, that the muscle tissue of the cervix has been inflamed, or reduced to inflammatory corpuscles or medullary tissue, and from that transformed into fibrous connective tissues, which cannot expand as muscle fibres do, so there is a rent, or "laceration."

The author quotes Dr. Emil Noeggerath as "declaring that women are more likely to conceive when there is a laceration than when there is not." In an article in 1891, I named "laceration of the cervix" as one of the "Causes of sterility in women." Among many instances I noted the following; For Mrs. C., 1 The Medical Record, September 19, 1891, a patient in the Women's Hospital of Brooklyn, who for years has not given birth to a child, I repaired a deep transverse laceration of the cervix, subsequently she had a number of children. Mrs. R., a patient in the same hospital had a similar laceration, was also sterile, and for this patient also trachelorrhaphy was performed and afterward she gave birth to five children. Mrs. McG, in the same hospital, had also a deep transverse laceration of the cervix, which was restored with equally good results. Mrs. D., consulted me for sterility. Thirteen years previously she had had a child, at which time occurred a deep transverse laceration of the cervix. I repaired the injury, and during the next five years she gave birth to five children. Another patient, her only child born five years previously, had died in infancy. I found extreme laceration of the cervix, on one side extending past the vaginal junction. This injury was repaired and subsequently she gave birth to six children. But nothing could be more conclusive than the words of the author: "I could instance several cases of women restored to health and procreative capacity, whose lives were miserable before extensive lacerations were cured, and I have seen several cases in which I believe the predisposing cause of serious uterine disease lay in old eversion and erosion, the consequence of an unremedied rent in the cervix." Adding: "There is little doubt that it predisposes to epithelioma and malignant disease of the cervix."

The author also quotes Neoggerath as saying: "Lacerations have no influence in producing Uterine disease." Can there be any doubt that at the time of parturition, a laceration of the cervix gives the way whereby infection may be introduced into the system, from which may result metritis, ovaritis and salpingitis, and thus may become a prolific source of disease.

Chapter 25th, "Vaginal Hysterectomy for Fibro Myoma." On this subject the author gives most practical surgical directions and many most important suggestions. Next we have the treatment of Uterine Neoplasms, and surgical treatment of uterine fibromyomata and different methods for the removal of uterine fibroids.

Chapter 29th, "Cancer of the Uterus and Operative Treatment." The author recognizes that the safety in removing malignant growths, is in early operating

Chapters 30 and 31 are devoted to "affections of the Fallopian Tubes," and to tubal pregnancy

Chapter 32nd. "Affections of the Ovaries—Ovaritis." The operation of Salpingo-ophorectomy and the conservative surgery of the Adnexa. Next ovarian cystoma, the operation of ovariotomy and the classification and pathology of solid tumors of the ovary. The next follows most valuable anatomical and pathological considerations in regard to diseases of the bladder and rectum.

The whole volume is full of most important information given with the clearest discernment, good judgment, and is of the greatest scientific value.

—Communicated.

## THE LAW SAYS THAT DOCTOR MUST NOT LEAVE PATIENT.

Dr. H. P. Flood was ordered to pay $2,000 damages by the supreme court recently. Evidence showed that over a year ago he was called to attend Mrs. Margaret A. Lathrope. An operation was deemed necessary by him. Her screams interfered with his application of the necessary instruments. He finally said that if she "did not quit he would quit." And leave he did although the patient was in agony. The husband followed the physician to the door, begging him not to go. He refused to come back and it was an hour before another doctor was obtained, the woman in the meantime suffering dreadfully. The other surgeon performed the operation, saving the mother's life at the expense of that of the child. Mr. and Mrs. Lathrope sued Dr. Flood and got a verdict for $2,000 in the superior court. Dr. Flood appealed the case to the supreme court, and yesterday the latter affirmed the lower court's action, saying, in part: "It is the undoubted law that a physician may elect whether or not he will give his services to a case, but having accepted his employment, and entered upon the discharge of his duties, he is bound to devote to the patient his best skill and attention, and to abandon the case only under one of two conditions. First, when the contract is terminated by the employer, which termination may be made immediately. Second, when it is terminated by the physician, which can be done only after due notice and an ample opportunity afforded to secure the presence of other medical attendance * * He can never be justified in abandoning it (case) as did this defendant, and the circumstances show a negligence in its character amounting wellnigh to brutality."—San Francisco Examiner.

Arrangements have been completed for the merging of the Marion-Sims and the Beaumont Colleges of St. Louis, and after May 1, 1901, these two institutions willl become one.

# QUESTIONS AND ANSWERS.

## A NEW OPERATION FOR HYDROCELE.

Question (1)—What is the modified Winklemann technique for hydrocele operation?

Answer—A new operation for hydrocele and one that has been performed with great success ten times during February at the Jefferson Medical College Hospital, Philadelphia, is a modified Winklemann procedure.

Drs. W. W. Keen and Orville Horwitz, who have performed the operation, are loud in its praise, both for its simplicity and efficacy; absolute cure of the condition having taken place in every instance.

The operation was conceived by Von Winklemann, a German surgeon, and reported during the winter to continental societies. The simplicity of the procedure is the striking feature of its execution.

The hydrocele tumefaction is grasped by the left hand posteriorly while a longitudinal incision is made down to the parietal layer of the tunica vaginalis testis through skin and superficial fascias but not into the sac. The position of this incision is about 2 c. m. from the median line and about 4 to 6 c. m. in length. The sac is separated from the overlying structures for the distance of a few centimeters in all directions. An incision 3 or 4 c.m. in length is now made into the sac, the contents evacuated and the testicle drawn out through the incision. The parietal layer of the tunica vaginalis, which had previously been separated from overlying structures, is now turned back on itself and sutured around the cord in this everted position, or, the parietal layer can be sutured around the base of the testicle at its connection with the cord. One of these procedures having been done the mass with the testicle external is reintroduced into the scrotum, hemorrhage stopped, and the external incision closed without drainage.

The virtue of the method relies upon a complete separation of the parietal and visceral layers of the tunica vaginalis and hence the obliteration of the sac. Both surfaces soon form adhesions with surrounding tissue. The operation can be done in a few minutes and cure is assured in a week. E. A. Rich.

Philadelphia.

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## LIMITATIONS OF MERCURY.

Question (2)—In the treatment of syphilis what is the limit of safety in the use of mercury, and what are the signs? What are the sypmtoms to indicate some other line of treatment?

Answer—The limit of safety as regards administration of mercury is to be determined solely by each individual case. There can be no hard and fast rules laid down. Mercury is a specific in the treatment of syphilis. Syphilis is a chronic disease, it must be treated by the administration of mercury in a continuous manner, giving the patient all of the drug he can tolerate, and at the same time improve his health as regards the manifestations of syphilis, or maintain his physical well being, if not menaced by any threatening symptoms. Good appetite, good digestion, maintenance of standard weight, healthy color of skin, in fact, good health indicate that mercury is not being used too sparringly or in excess. A pallid countenance, stomatitis, loss of appetite, diarrhea, colicky pains, sore gums, metalic odor to the breath, increased flow of saliva, should warn the medical attendant that mercury is being used too freely, or is feebly eliminated.

In answer to the last question: gummatous and tubercular lesions demand the use of the iodid of potassium, frequently in large doses, with due regard to the diet of the patient; anemia, general weakness, indicate ferruginous tonics, nux vomica, strychnine and all remedies calculated to build up and maintain perfect nutrition. C. M. Ferro.

## LIMITATION OF SUGGESTION IN NEURASTHEMIA.

Question (3)—Please give what is considered the limit of suggestion in the treatment of neurasthenia.

Answer—No fixed limit can be set as a general statement covering all cases. The question must depend always upon the conditions obtaining in the individual case. Simple suggestion, properly employed is of much value with all neurasthenias and the observant practitioner will always employ it fully but with tact. As to the value or advisability of going beyond this into any degree of hypnotic suggestion or complete hypnosis, opinion differs widely. Used moderately it may be of distinct value, but it can easily be overdone. Employed in moderation it may stimulate weakened will power and self control, help to displace the various "phalias" and morbid introspection and be distinctly beneficial. But applied too fully it may be detrimental to the weakened force of mental activity and will power and do harm And while the complete hypnotic state may be induced without injury in the single instance or at suitably long intervals its value is slight and has been much over-estimated, and except in special cases with very definite indications, simple suggestion carried on continually with the genral treatment and direction of the case will usually give the best results. Leo. M. Crafts.

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This is a new department in the Medical Dial, and it is to be hoped that physicians will not hesitate to use it freely. Questions regarding stubborn conditions, new symptoms occurring in ordinary practice, or, in fact, anytning pertaining to medicine or surgery, are respectfully solicited from physicians.

The following additional questions have been propounded, which we hope will elicit a large number of answers.

Is a liberal supply of fats necessary for the maintainance of good health? Will the general use of fats ward off contagious diseases?

What are the infallible signs of ovarian cyst?

What is the latest technique in operating for anal fistula?

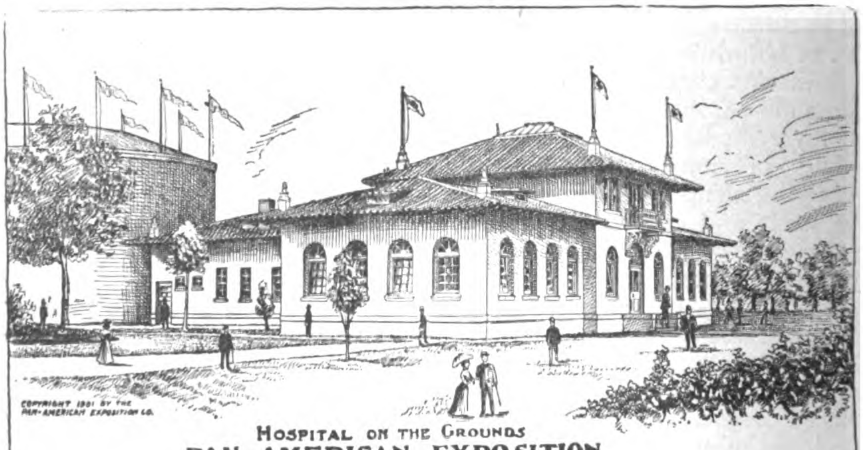
Please give an axium for guidance of the physician through the crises of self-limited diseases.

In what conditions of the system should buttermilk be prescribed, and how freely should it be drank?

What effect has the long-continued use of pure milk on the digestive organs of a healthy person, in connection with a well-regulated diet? What conditions indicate its use?

In your opinion which is the most remarkable surgical operation ever performed, in which the life of the patient was presumed not to have been shortened? Please describe the case and name the operator.

In the case of a farmer, eating three full meals a day, at 6 a. m., 12 m., and 6 p. m., respectively, doing a reasonable amount of work, and in good health, in what part of the intestines would the solids from each meal be found, say one, two and three hours after eating?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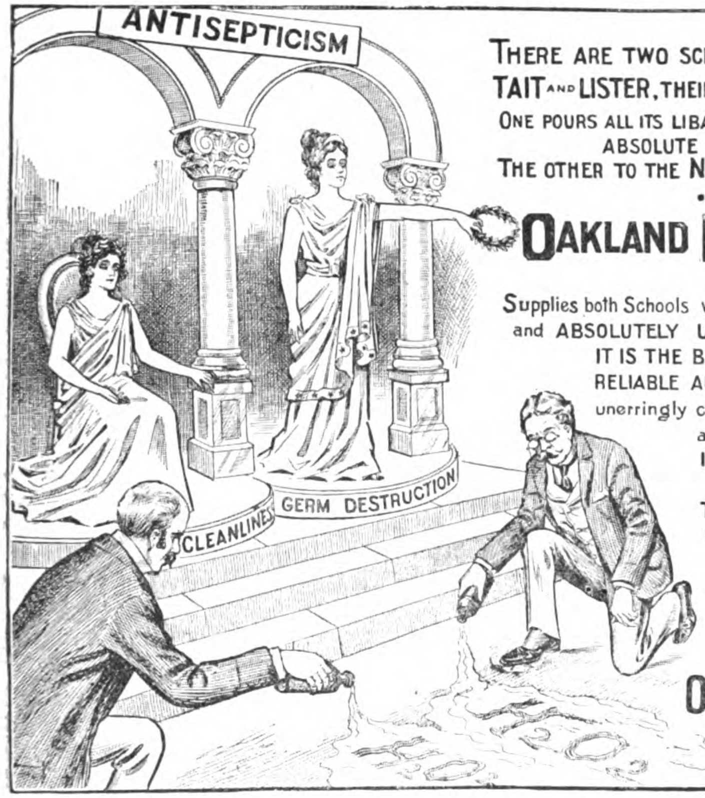

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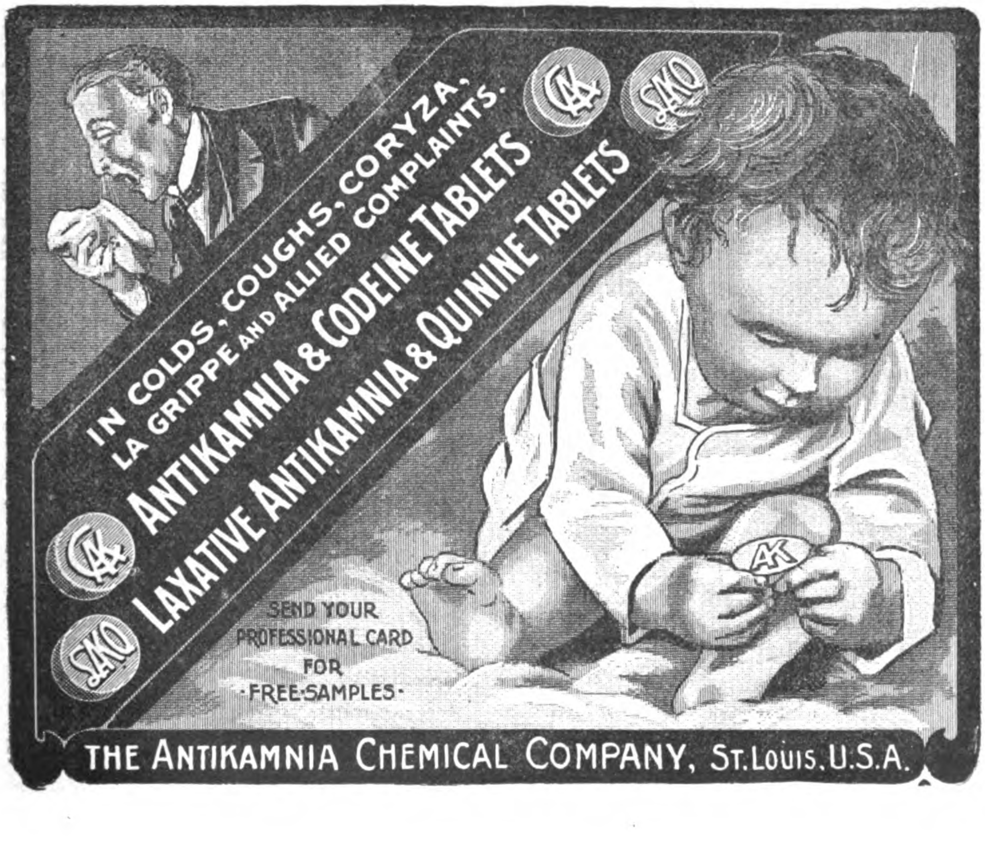
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## THE TREATMENT OF SYPHILIS. A NEW AND TOLERABLE FORM OF ADMINISTERING MERCURY WITH REPORT OF 65 CASES TREATED AT BELLEVUE HOSPITAL.

By Winfield Ayres, M.D., New York City.

Instructor in Genito-urinary Surgery at the New York Post-Graduate Hospital, and attending Genito-urinary Surgeon at Bellevue Hospital, Out-door Patients' Department.

(Abstracted from the Author's Original Paper in the Philadelphia Medical Journal, November 10, 1900.)

The writer states that when his attention was called to Mercurol as an antiseptic of special value in the treatment of gonorrhoea, it occurred to him that it would be a first-class preparation for the treatment of syphilis. Some time was necessarily spent in determining the proper dosage. At first one-eighth of a grain was given three times daily, and this dose was gradually increased until it was found that three grains was the average quantity required to control the malady. The highest amount given was seven grains and the lowest amount that exerted a controlling influence upon the disease was one-half grain. In starting a patient on a course of Mercurol the author advises beginning with half grain or grain doses. Salivation has been produced by two grains, and yet as much as six grains has been taken with no disagreeable symptoms.

The objections to the use of unguentum hydrargyria as a remedy in secondary syphilis are referred to; and while the popularity of mercuric protiodide is conceded, the irregularity of its action and its tendency to cause gastric and intestinal disturbances are not overlooked. In the writers' experience 33 per cent of his cases were not benefited by this drug.

Mercurol is a nucleid of mercury, and was discovered by Karl Schwickerath of Bonn, Germany. Kopp, Director of the Royal Polyclinic for Genito-urinary Diseases at the University of Munich, uses Mercurol in smaller doses, which leads the writer to remark "he will find as I have done, that it is desirable to use a much larger dosage." Mercurol should not be given in solution with potassium iodide.

In all, 65 cases received Mercurol at the Bellevue clinic, 60 of which had not had previous treatment. Of these, 13 did not return after the first or second visit; 14 did not remain long enough under treatment to give the preparation a fair trial; and 13 may be described as new patients. Deducting these 40 cases, there remain 25 cases that have been sufficiently long and regular in their attendance to supply data from which definite conclusions may be deducted. The detailed histories of these 25 cases are included in the paper. In summarizing the author remarks that while two months' treatment of syphilis is insufficient to determine absolutely the value of any remedy, the marked improvement shown by many of his cases makes it certain that Mercurol is of great value. Its superiority to mercuric chloride in controlling the symptoms of syphilis is proved. Like all internal remedies it has very little effect upon the initial lesion; still it has hastened the healing slightly. None of the cases required treatment with potassium iodide to control secondary manifestations.

To recapitulate, (1) Mercurol causes less disturbance of the gastro-intestinal tract than any other preparation of mercury used internally. (2) It controls skin eruptions and pains much better than any other preparation, while it controls mucous eruptions as well as any other, and has equally as good an effect upon the chancre. (3) It is an advantage that it can be taken in pill form.

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The French Minister of War, De Gallifet, has summarily and absolutely prohibited the sale of alcoholic liquors of any kind in all the military canteens.

Dr. Frederick Peterson, President of the Board of Managers of the Craig Colony for Epileptics, Sonzea, New York, offers a prize of $200 for the best essay on Pathology and treatment of epilepsy. Award made March 8, 1901.

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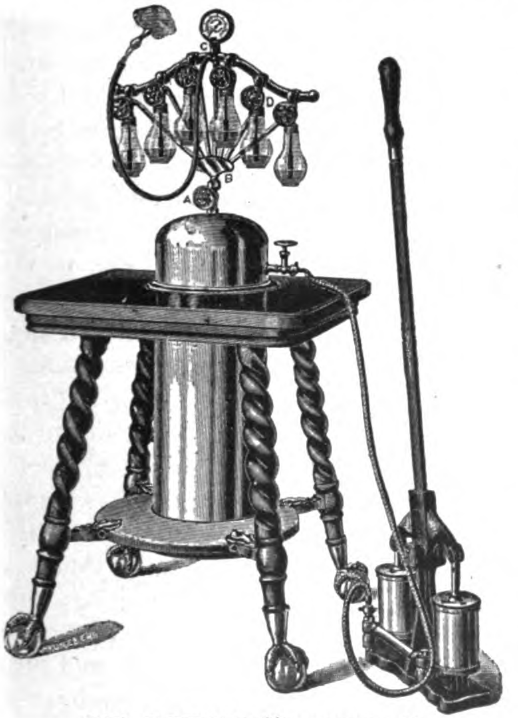

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J. T. HAMILTON, M. D., Kansas City, Mo.
Professor of Clinical Optics and Refraction.

## FEMALE NEUROTICS—THEIR TREATMENT.

Prof. Chas. J. Vaughan, Chair of Gynæcology, Atlanta College of Physicians and Surgeons, writes: "Cerebro-nervous affections peculiar to women associated with pathological disturbances of the reproductive organs are legion, and most trying to physician and patient. Physicians are aware of the wide prevalence of these nervous disorders, for comparatively few women are entirely free from some phase of the ailment. Neurasthenia, neuralgia and other manifestations, either of an active or passive character, are common and are always peculiarly rebellious to treatment. Neuralgia constitutes the great cause of danger from the employment of hypnotics and narcotics, which only afford relief by numbing, but effect no cure. On the other hand, the formation of a drug habit rather aggravates the condition from which relief was originally sought. I have found nothing so well suited to these cases as five-grain antikamnia tablets, administered in doses of from one to three tablets and repeated every one, two or three hours according to the attendant's judgment. These tablets not only afford complete relief without fostering a drug habit, but they do not endanger weakened hearts. Their exhibition is attended with no unpleasant after-effects. I use them in preference to any other preparation in the treatment of female neurotics and experience demonstrates that they are safest and best."

## IMPLIES THE NEED OF BOTH.

Henry, Medical Essays, says: In the treatment of that large class of cases in which derangement of gastric and hepatic secretion constitute the chief therapeutic indications, the calisava alkaloids in combination with iron, arsenic and mercury in small dose stand in tne front rank. As long ago as 1852 writers noted the sedative action of minute doses of arsenic upon the stomach, and there are few who are not familiar with the classical experiments of Keyes upon the hemotogenetic action of bichloride of mercury. This effect of mercury is probably due to its stimulant action upon the liver, thereby increasing bile secretion and making more perfect the process of intestinal digestion.

An indication for one of these components implies the need of the others, since the combined action is that of a stimulant to glandular secretion of stomach, intestine and liver with the result that the period of digestion is shortened and the peristaltic action of the stomach and intestine heightened. It follows that constipation does not result from the use of this combination, as found in three chlorides, Henry (liq. Ferrisenic), and we have the therapeutic anomaly, a ferruginous laxative tonic.

## CLINICAL NOTES AND COMMENTS.

Dr. T. D. Crothers, Editor, Quarterly Journal of Inebriety, in the January, 1901 number, writes: "Antikamnia has become one of the standard remedies, particularly in Influenza. It is prepared with various drugs in tablet form, the latest, a laxative tablet, with quinine and some mild cathartics, called 'Laxative Antikamnia & Quinine Tablets.' All of these forms are very attractive and palatable. We have never seen a case of addiction to antikamnia, hence we prize it very highly as one of the most valuable remedies for diminishing pain without peril. We have used it with excellent results to quiet the pain following the withdrawal of morphia. We have received from this company many complimentary notice showing the vast influence it has secured among regular practitioners. The object of the antikamnia in 'Laxative Antikamnia & Quinine Tablets' besides its antipyretic and analgesic effect, is the prevention of all griping, nausea and other unpleasant effects generally produced by purgatives when administered alone."

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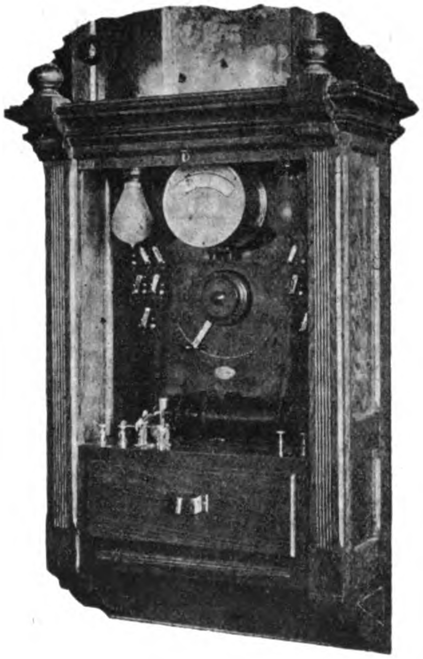

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The extension of the Duluth, Missaba & Northern railway is now well under way; and when completed will afford an outlet for much iron ore of the Missaba district. The right of way is cleared to within five miles of Missaba. It is said that this extension will be completed by June 1, and that the Stevens mine will be ready to ship by that time. There will probably be 100,000 tons of ore shipped from this mine alone during the summer. It is reported that the Oliver company has purchased this mine, as well as the White mine. The value of the other mines in the region have materially advanced since work on the extension of the road commenced.

It is a matter of record that the first discoveries of iron ore in the Missaba range of Minnesota were made in the eastern end of the range, but for some reason further explorations were discontinued there, the developments during the past decade being consummated in the middle or western section. Explorations are now in progress in the former section, with much encouragement as to future success. The discovery of a body of 10,000,000 tons of high-grade ore about eleven miles southeast of Biwabik, known as the Stephens deposit, was the starter in the direction of the eastern end.

Selected specimens from the new amygdaloid of the Rhode Island mine, near Houghton, Mich., are very rich. Experts favorable to the property claim that the eight-foot lode will average 1¼ per cent mineral between the walls. The Michigan in same district has struck heavy copper in the south bluff tunnel. The identity of the lode is undetermined and the value of the find can be ascertained only by opening it more extensively, but the rock is decidedly promising.

The total amount of sinking done on the property of the Champion Copper company, near Marquette, Mich., up to Jan. 1, 1901, was 1,522 feet; total drifting 2,676 feet; crosscutting 312 feet Negotiations for a steel stamp mill and the necessary mill machinery are well in hand.

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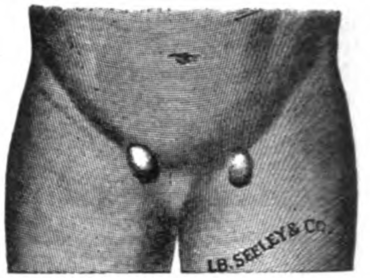

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## By E. EDGAR GRISWOLD.

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**Subscribers of Medical Dial can secure Metal Miner for balance of year for 50 cents. Others may have both journals for $1.00 for same time.**

Dr. Charles Austin Ross, assistant surgeon United States army, was killed in Northern Luzon, Philippine Islands, on Saturday, February 2d. A soldier had been shot and Dr. Ross started out into the field to dress his wound when he was shot from ambush. Dr. Ross was twenty-six years of age, and received his commission only last September. He had been in the service but three months. He graudated with first honors from the Kentucky School of Medicine in Louisville, in the class of 1897. He served one year as resident physician of the Louisville City Hospital, where he exhibited unusual qualities as a surgeon. He began practice at Leopold, Ind., and had been there two years when he joined the army. He leaves a widow residing in Evansville, Ind.—Medical Record.

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(Editorial, Metal Miner, Minneapolis.)

## PLACER MINING AS REVOLUTIONIZED BY THE MODERN DREDGE.

Until less than half a century ago practically all the gold of the world came from placer mining through the use of the crude implements then in use, and even at the present time more than seventy-five per cent. of the supply comes from the free gold found in sand and gravel. Men thought they were doing wonders in those ancient days by the use of the pan, the cradle and the long tom, but where gold was found in such small quantities that the use of these implements became unremunerative, ingenuity played an important part in the working of placers, and then came hydraulic mining when great hills were washed away to obtain the particles of free gold. This method was a great improvement, but required a considerable outlay of capital.

In all forms of placer mining the great essential is an adequate water supply, which, in the case of the simple implements used in only hand work, may be small, either still or running water, but in the case of hydraulic mining two essentials enter into the problem, there must be a large supply very much higher than the point of the nozzle and there must be a stream below the nozzzle to carry off the waste. The principle is the same in every scheme for separating the precious metal from its environment, the water washes away the refuse, leaving the gold on the riffles or on the amalgamated plates. All ways of securing placer gold are of course popular wherever the metal is found in paying quantities, the available method chosen depending upon the resources of the lucky finders. If they do not have the means to employ the better and faster procedures, or if the conditions are unfavorable for these, the precious stuff will be collected, even in the slow and tedious process of panning or rocking.

There is probably no method of mining at the present time that offers better inducements to increased operations in this field of human endeavor than placer mining, because there are such vast areas containing the pure metal covering untold acres and now considered waste ground, that it would seem that the supply is absolutely inexhaustible, which is practically the whole truth.

Just how to secure the gold known to exist in ground on a level or below the surface of a stream or lake was a study for many years and the problem was unsolved until about four years ago when the modern gold dredge was invented, an improvement towering above the spoon dredge that had been tried and found to be a failure, ever sad disappointments to the investors who furnished the capital and the operators who did the work.

The modern dredge is the machine that uses buckets working the same as the old-fashioned buckets in grain elevators, threshing machines and flour mills, only these buckets are gigantic affairs which are fastened to huge chain belts of the strongest material. The ponderous proboscis is plunged beneath the water and shifted to suit the lay of the ground and the wheels begin to revolve, swinging up the great buckets with their contents of mud and gravel and dumping them into a hopper, while large pumps are at the same time forcing water into the same receptacle and washing everything down the long sluice back into the water behind the boat upon which the machinery floats. On the way down this sluice the shining particles are caught on the riffles or on the amalgamated plates, and at the end of the day cleaned up and carefully stowed away in the treasury box of the owners. It is an interesting process all the way through, the magnificent machine responding to the slightest touch to the throttle by the single engineer required. But the most captivating fact in connection with the work is that while a yard of dirt washed out is a good day for a single man under ancient methods, this well-nigh intelligent machine will handle several thousand yards according to the capacity for which it was built.

With this machine it is quite easy to estimate ahead the production of gold, for in much placer ground the soil will run about the same in value for any given area, the average being found by preliminary testing. This has been proven a great many times in Colorado, Montana, Idaho and California, where the best grounds lie in the valleys of small streams and gulches and are universally nearly level. Some are in cultivation, and on many acres alfalfa and grass are grown. The depth of sand and gravel in those localities varies from 15 to 30 feet.

Profits in elevator dredging depend on the richness of the ground and economy in operation. A dredge handling 2,000 cu. yds. per day of 24 hours at $1 per yard, will earn $2,000. There is a big profit in 50c ground and a good profit in 25c ground, which would yield $500 per day. There is plenty of 25c

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VOL. III.
No. 5.

MINNEAPOLIS, MAY 1, 1901.

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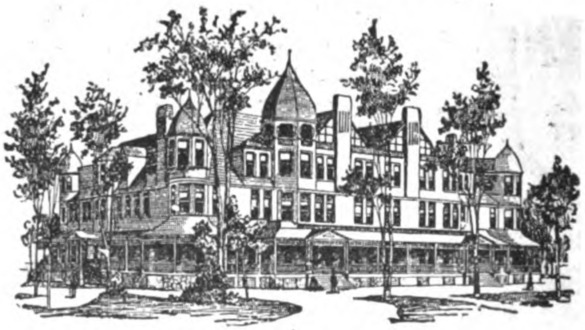

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DIRECTIONS.

One level to a heaping teaspoonful in a glass of water one to three times daily, as the physician may direct. In unusual cases where the bowels are hard to move, the dose may be increased to two heaping teaspoonfuls. As the dose of Lithium Citrate is from 5 to 20 grs., and Sodium Phosphate is from 1/8 to 1 oz. for a purgative. But where it is given continually for the Lithemic condition it is recommended to be given in from 40 to 120 grains daily.

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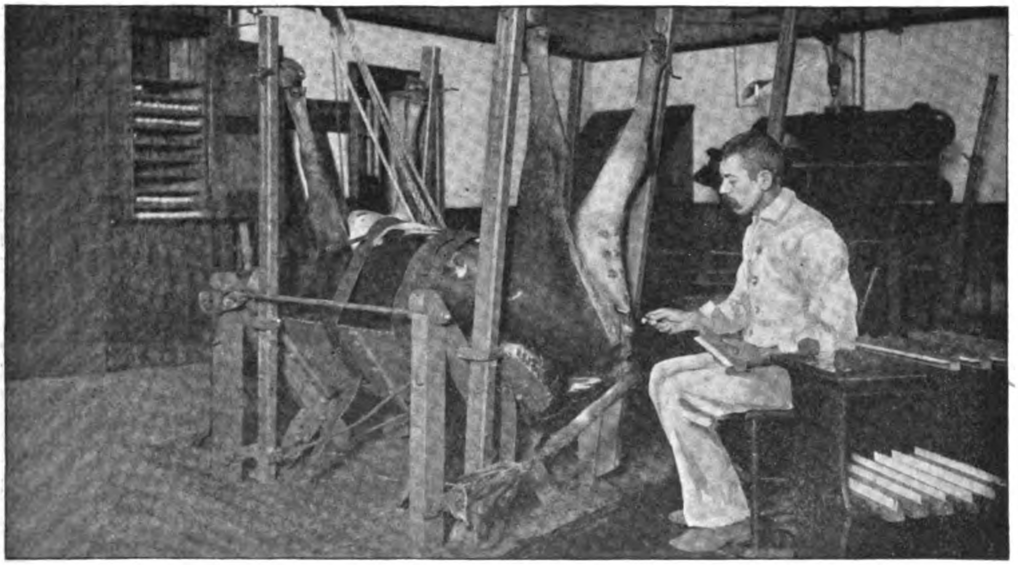

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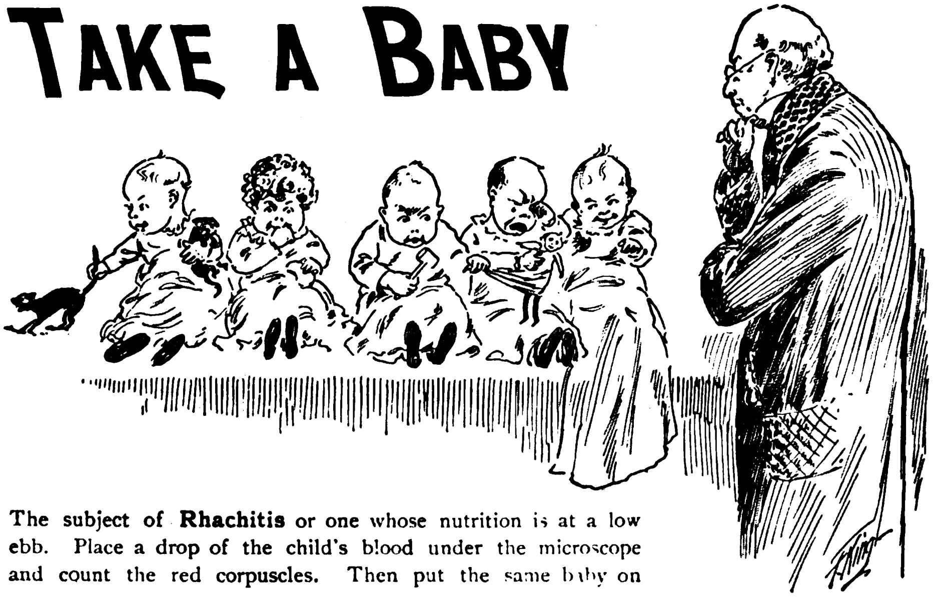

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# MEDICAL DIAL

A Monthly Record of Medicine and Surgery.

Vol. III. MINNEAPOLIS, MAY, 1901. No. 5.

## ORIGINAL ARTICLES.

### *REPORTS OF CASES.

By Charles W. Williams, M.D., Minneapolis.

#### WEB FINGER, OR SYNDACTYLISM.

This deformity is usually an affection of the ring and middle fingers, and may be merely a web extending only a part or all of the way to the tips of the fingers; or the fingers may be in close apposition, with no crease at all. The deformity is usually a family trait, though in my case I could find no history of any former case in the ancestors.

Cutting the web is of little use, as on healing it usually contracts, and the condition resulting is often as bad, if not worse than before the operation. A slight incision may be made at the base of the fingers, and a ring put in until the wound is thoroughly healed, then the operation is completed at a later period.

Agnew's operation has been performed particularly if there is much of a web. This procedure consists in making a V-shaped incision at the base of the fingers, bringing the flap thus made, and stitching it to the palm of the hand. The objection to this operation is that there is left a deformity at the base of the fingers, the flap being broader than the fingers, at this point; besides it is not applicable if the fingers are close together.

Didot's operation is the most satisfactory. It consists in making a flap the length of a finger and half its width on the dorsal surface of one finger and on the palmer of the other. These flaps, with the web, if there is any, are dissected away, then carefully applied to the raw surface of the fingers, to which they are attached (which leaves a skin surface covering the parts that are in apposition.

In my own case, a child two and a half years old, the middle and ring fingers of the right hand were in close apposition, with not a semblance of a crease on the dorsal aspect of the fingers, and only a very slight one on the palmer, so I had to dissect away a part of the fat before I could bring the flaps to cover the dorsal surfaces. The operation which I performed was a mortification which I performed was a modification instead of making the incision the length of each finger, I stopped before reaching the first joint, then cut across to the center between the fingers, and making the rest of the incision in the median line.

The advantages of these modifications are:

1. No scar is left over either joint, either on the dorsal or palmer faces, consequently there is a freer action of the joints.
2. There is but a very short cicatrix, especially on the palmer surface, to come in contact with the everyday wear of life.
3. The cicatrix, being almost entirely between the fingers, the deformity is much less noticeable.

I have watched this case for several years, and the result is all I could wish for in all the above three respects.

#### CONGENITAL ATRESIA OF THE VAGINA.

In a case which came under my observation, which was that of a married woman, age 26, married three years, and did not know of anything abnormal until after her marriage, the membrane extended from about an inch from the vulvar orifice anteriorly to about two and a half inches posteriorly and was about three-eighths of an inch in thickness, with just a very small opening large enough to pass a probe nearly to the center of the partition. There seemed to be quite

---

*Presented at the meeting of the Hennepin County Medical Society, April 1, 1901.

a space back of the partition, as I could bend the probe and pass it in all directions. My idea was to make a crucial incision of the partition, and, instead of removing it in its entirety, to stitch the two edges of the membrane together, thus to prevent the retraction, as it occurred to me that if the two edges were brought closely together there would be no danger of contraction, which is the great trouble when the entire partition is removed. But on incising the membrane, I found a rudimentary uterus not more than one-third the usual size, which was thoroughly dilated, undoubtedly due to the damming back of the menstrual flow, even though there was a small opening through which she menstruated. There was no cervix. In a few months the uterus contracted, so that the depth of the vagina was not materially lengthened, and the only thing gained was less pain during menstruation.

I kept track of this case for several years, but neither the uterus or the vagina had developed materially. But she still remained comfortably free from pain during her monthly periods.

### TRAUMATISM OF THE KNEE AND THIGH.

My third case is that of a boy about 12 years old, who met with a serious accident in attempting to board a moving freight car, Nov. 10, 1900. He was struck on the external condyle of the tibia, about half an inch below the patella. The skin was torn across the knee to the inner side, and starting from the external condyle again it was torn upwards and backwards, until, when it reached the glutial fold, it was nearly in the center of the leg posteriorly. There was another wound two and a half inches long at the inner side, starting about an inch above the end of the first wound across the knee, and a very severe bruise anteriorly at about the junction of the upper and middle third of the thigh. But the skin was not broken through.

Dr. Matchan was called in consultation, but neither of us could find any fracture. The wound was thoroughly cleaned and carefully stitched. There was considerable shock, but the patient rallied, and at no time was there any evidence of sepsis. But the vitality of the flap was impaired so that most of it gave way, and on the 18th of December, through the kindness of Dr. J. W. Macdonald, who had made an amputation on that day, I took the leg which he had removed, and by Thierch's method, covered the entire wound, a surface 5 by 10 inches, all of the grafts, except one, taking. But, owing to lack of care, a little later, several of them gave way. The result was entirely satisfactory. I should have stated that the attachment of the tensor vaginae femoris was torn away, also a large part of the vastus externus which left the outer part of the leg considerably weakened, so that when he began to walk his leg bent outward. I also found that the femur was an inch and a half shorter than its fellow. The results in all other respects were satisfactory, and at present the knee is much stronger, and the leg is growing at least as fast as the other.

Another very peculiar feature of the case is that the patella seems to be gradually growing away from its lower attachments, and, when the knee is bent the patella slides at least three-quarters of an inch above the normal location, and seems to be gradually working upward. The patient seems to have perfect control of the knee joint, only, as stated, it is a little weakened at the outer aspect.

# THE HOSPITALS OF JAPAN.

By Edw'd C. Register, M.D., President
of the Board of Medical Examiners
State of North Carolina; Ex-
president of the Charlotte
Medical Society.

Japan has few hospitals, only ten. This is certainly a very small number when we consider that the country has a population of forty-five million and several large cities, one as large as Philadelphia, and three with five hundred thousand inhabitants each. It has a few cities with a hundred thousand people and no hospital at all. Tokyo, the capitol of the nation, only has two, the Imperial University Hospital and the General Hospital.

The former is the largest and in many respects as good as any institution of the kind I have ever seen. It is as large as all the other hospitals of Japan put together. It is almost entirely maintained by the government. It has eighty resident physicians and six hundred trained nurses. The average number of patients treated there is twenty-two hundred, and in the various out-door departments many thousand sick people are treated annually. The main building makes no pretensions to architectural beauty; it is a perfectly plain two-story brick and stone structure, a hundred feet wide and four hundred feet long. It is located in the middle of a beautiful park, with its lawns, green terraces, tropical trees and plants, playing fountains and here and there artistically arranged and various shaped, are comfortable looking rests or seats, some in the sun, others in the shade, many grouped around fountains, while some are scattered along little rippling streams. Here landscape gardening has reached the highest state of development.

This building is only used for offices, reception rooms, parlors, library, museum, billiard rooms, drug rooms, and the microscopical department. This microscopical laboratory is the largest and most complete I have ever seen. Here I had the pleasure of meeting the celebrated Dr. Kitasato who was sent, several years ago, to China and India by the Japanese government to investigate the Bubonic Plague, and who successfully isolated the bacillus of this disease. He is evidently a very scientific man and an accomplished physician.

With the exception of the operating rooms, all the other buildings connected with this institution are one-story high, made of wood, and join the rear of the large stone building, leading off from it at right angles and parallel with each other. They are four in number and extend back possibly five hundred feet. About every hundred feet they are connected with each other by covered bridges with glass sides. On both sides of all the wooden buildings, there is a narrow veranda which is usually closed by sliding glass doors. All the wooden buildings are painted white, inside as well as outside.

The physicians and nurses wear white uniforms, European in style. With all this perfectly clean and glittering glass, surrounded by so many flowers and shades, with the sun's rays peeping in here and there, it certainly looks beautiful and healthy.

Connected with these buildings, there is one for the physicians, one for the nurses and one for the servants, a department for lying-in patients, one for contagious diseases, and one for the insane. The architecture of them all is uniform, the distance between them, and the way they are connected, are all identically alike. Several other buildings, used for minor purposes, are scattered about over the park making a perfect net-work of houses, all conveniently arranged and magnificently kept.

The surgical department is a large two-story stone structure, plain, but rather handsome. It stands off to itself. It is a comparatively new building, has only been finished about a year. It has several operating rooms and amphitheaters, and can take care of about two hundred surgical cases at a time. Minor cases are usually cared for in the main hospital building.

Surgeons in this country are very conservative, a great deal more so than in America. Patients are slow to consent to be operated on. They have to know that it is their last chance before they will consent. This is not because they are cowards or not as brave as other people are. It is because they have acquired, and to some extent inherited, a prejudice against surgery. This is not peculiar to the Japanese, it is characteristic of all oriental-semi-civilized people where Buddhism exists. Some of its former teachings prejudiced the people against surgical operations. To cause bloodshed except when favored by their god of war was a great wrong. There was no exception to this rule, even in their relations to the lower animals. To a great extent this prejudice is gradually being overcome.

This makes the surgical work of this great hospital rather small when compared with its other departments. It has septic as well as aseptic operating rooms. In the former, they pay very little attention to cleanliness, but in the aseptic operating rooms every thing glitters and is in perfect order and is, no doubt, thoroughly aseptic. In and around these operating rooms you can see large and beautifully arranged instrument cabinets filled with every apparatus and appliance known in connection with modern surgery. The most of them are made in Japan, but they import some of them from Germany, England, and a few from America. The wards were overcrowded, and the rooms for single patients are very small, not over ten feet square, and, strange to say, in an institution so modern and so well equipped in so many respects, would furnish their first class rooms, just as they are in a hotel, with velvet carpets, rugs, curtains, cloth covered sofas and chairs.

The crowding of their wards to overflowing seemed to me cruel, yet the patients looked comfortable and many of them happy. Both sexes were often in the same ward, being bathed and dressed at the same time, without any embarrassment to any one.

It has been said that nudeness can be seen in Japan more than any other place in the world, but it is never looked at. The correctness of this was impressed upon me when going through the wards of this hospital.

While the surgeons in this country are very conservative, they are not timid. Many of them do excellent work. I spent a day in this Imperial University Hospital, saw several operations, and I observed nothing that was not intelligently and skillfully done. One young assistant surgeon, who could speak a little English, told me that he had used the Murphy button seventeen times without a single failure, and that the chief surgeon had performed seven laparotomies for perforation in typhoid fever and had saved three cases.

I was astonished to see so many cases of tuberculosis in this hospital. Forty per cent of the inmates had tuberculosis. Going back over the records for five years shows that thirty-five per cent of all cases admitted were tuberculous. This great susceptibility to tuberculosis, on the part of the Japanese, was something new to me. Statistics show that thirty-two per cent of all deaths in Japan is due to tuberculosis. In America it is less than fifteen per cent and we are justly alarmed.

Rheumatism was the next most prevalent disease I found in this hospital, and skin diseases were very rare.

It is easy to observe the causes of consumption in this country. Leaving out all hereditary tendencies, the habits and customs of the people would naturally cause it to develop. Their houses are always built on the ground, uniformly one-story high, few windows and they are like pigeon holes. They have few facilities for heating their houses. Even in the coldest weather they will do without fire, consequently their homes are cold, damp and dark, just the conditions and surroundings to favor the development of tuberculosis. Besides a Japanese seldom has anything on his floor. Sometimes among the better classes they will use a straw matting, something like we use in the summer. They always take off their sandals or wooden shoes at the door and wear nothing on their feet while in the house, no matter how cold and damp it is. With these conditions and methods of living it is not surprising that consumption and rheumatism are so prevalent.

The absence of skin diseases among the Japanese is evidently due to their cleanliness. I suppose they bathe more than any people in the world. There are over eleven hundred public baths in Tokyo alone, and it is estimated that four hundred thousand people patronize these baths daily. They use the water a great deal hotter than we do in America, seldom under 110 deg. Fah. and often 118 or 120 deg. Fah., and remain in the bath for hours, especially in the winter, as it is a cheap way to keep warm. It costs them one sen for each bath, about a half cent in American money.

I noticed in the Imperial University Hospital that they were giving creosote in pulmonary tuberculosis, in seventy-five drop doses, three times a day, injecting serums made in Germany, and experimenting with some made by themselves. They were using inhalers and sprays just as we do, and I suppose with about the same success.

The General Hospital at Tokyo is quite a nice institution. It is partly under the control of the Red Cross Society of Japan. It has twenty resident physicians and two hundred trained nurses. Its average attendance is seven hurdred, besides thousands of sick people are treated in its various outdoor departments. The buildings are old and the grounds have an appearance of dampness and neglect, a lack of brightness that does not very favorably impress a visitor. The general arrangements of the buildings are on the cottage plan, with one very large brick building, which is used for the officials of the hospital. The operating rooms are fairly well arranged and equipped. They will compare very favorably with some of our large hospitals.

The Yokohama Hospital is small and badly arranged, and evidently poorly managed. It is attended by a staff of three physicians, who live in the city. The building is old, damp and dark, surrounded by no gardens or yard.

Kioto, the old capital of Japan, a city of six hundred thousand population, only has one good hospital. This is the Kioto Hospital Medical School. It is a hospital and medical college combined. They are under one management and the buildings are connected. The grounds cover ten acres and are beautiful. The buildings cover about three acres and all but one of them are made of wood, and are two stories high. The main building is three stories high, built of stone, and it is new and a handsome structure. Twenty-eight physicians are connected with this school and hospital. Twenty-one students were graduated last March. All the physicians live in little cottages on the hospital grounds, and the students room in the main building. Three physicians from Germany and one from Holland teach in the medical department. It is partly supported by the city government.

About five years ago all of its buildings were destroyed by fire and they have only in the last year finished rebuilding them, consequently everything is new and up to date. They have two operating rooms not connected with amphitheater halls. I have never seen anywhere two operating rooms more conveniently arranged or more thoroughly equipped. Here pharmacy is taught as well as medicine.

Several years ago the medical school was divided into a medical school proper and a preparatory medical school. When a student begins with the preparatory studies it takes him twelve years to graduate. This hospital has the most complete hydrotherapeutic establishment of any in Japan. It occupies the basement of the main building and is thoroughly modern in every respect. It comprises a Turkish bath, vapor bath, Charcot's douche, electric baths, sulphur baths, iron baths, and a suite of hot and cold baths with sprays. Annexed to this department is a completely fitted medical gymnasium.

The Doshesha Hospital at Kioto is kept up by a Canadian mission. It has no resident physician and only one trained nurse, who is from New York. Three physicians attend the hospital, each a week at a time in rotation. They have six or eight beds fixed up especially for foreigners, and many Europeans and Americans have been cared for there.

Nagoya, a city of two hundred thousand population, has only one small hospital. It is a private institution, run by three rather bright, enterprising young Japanese physicians. The buildings were not originally constructed for the purpose for which they are now used. The grounds are small, no lawns, and few shades. The surroundings had a dilapidated, neglected look, and the inside was dark, damp and had a mouldy smell. Their little operating room looked neat, but was poorly furnished. They had sixteen patients, but none of them were surgical cases.

Osaka has a city hospital. I did not have an opportunity to visit it.

Kobe and Nagasaki each has a hospital. The one at Kobe interested me greatly. Its buildings are very large and it is evidently well patronized. They have eighty trained nurses, and an average of two hundred and fifty patients. Its reception rooms for out-door patients were crowded to overflowing. The general operating room for third-class patients, interested me more than anything surgical I have seen in Japan. Here seven operations in one room were being performed at one time. It reminded me of Barnum's circus, it had so many attractions going on at one time. It had no preparatory ante-room for undressing or dressing. The anesthetic was administered and, in fact, everything connected with each case was done in this one room. Female as well as male patients were admitted and treated or operated on as their time came. I noticed one surgeon was operating for urethral stricture in the male, another setting a broken arm for a little boy, while another was doing gynecological work. Only seven physicians remain in the hospital at night, all the others live in different parts of the city. I could not learn how many were connected with it or how they were appointed.

The Red Cross Society has recently established a hospital in Kobe. The day I visited it, it only had three patients, one nurse, and no resident physician. I did not see the hospital at Nagasaki. I understand it is used party for the Japanese navy. America, England and Germany all have naval hospitals at Yokohama.

I suppose it might be said that there are a great many other hospitals in Japan that I have not mentioned. There are many little mission hospitals where they are doing dispensary work, and often they have a few beds where they take care of three or four patients at a time. A great many physicians have their own little private hospitals. I visited several of them. They are so small, have so few facilities, and are so poorly patronized, that they are not recognized by the local city directories. The Japanese army has several hospitals. I did not, of course, visit them.

The Imperial Hospital at Tokyo, that I described at first, seems to be the medical centre of Japan. Nearly all the best people, throughout the country, when they have to submit to any important surgical operation, or have any serious complicated disease, go there. The distance from any part of Japan to Tokyo is short, the railroad facilities are good and the fare is less than a cent a mile. This makes the surgeons, physicians and specialists there very accessible, and they are patronized more than they are in any other part of the country.

The Japanese physician is peculiarly fitted for certain departments of medicine. It is characteristic of the best element of the race to be industrious, deliberate, careful, and he loves more than anything else to work for days, weeks, and even months, at a single little thing. Mr. East certainly knew the people well when he tersely said that they seemed to be "great in small things and small in great things." I notice that they are enthusiastic workers in microscopy, their patience seems never to tire; they will prepare slide after slide, specimen after specimen, and their interest never sags. This kind of work suits them.

In surgery the smaller and more delicate and difficult the operation is, the more it interests them. The average Japanese physician would rather see a cataract operation than a hysterectomy. To watch them prepare for an operation, the time they seemingly throw away arranging little things, the minute instructions they give their assistants and nurses, even in minor surgical cases and to observe them fix, with so much care and deliberation, every table and tray, every knife and sponge, perfectly oblivious to time, is as amusing as it is tiresome to the hustling, restless, and impatient American.—Charlotte Medical Journal.

Nagasaki, Japan, Oct. 23, 1900.

## A ROCKY MOUNTAIN SANATORIUM.

To save the lives of thousands of persons belonging to other states from death by tuberculosis is the object of an organization of Denver physicians and other professional men and women for the establishment and maintenance of the Rocky Mountain Industrial Sanatorium, which has just been incorporated.

The organization aims to be national in its scope, and has the indorsement and support of many of the foremost physicians of the United States. Its purpose is to aid the great majority of tubercular patients in poor or moderate circumstances who go to Colorado and other mountain states in the hope that the climate and altitude will aid in effecting a cure, and who, almost invariably, either from lack of means or proper direction, are immediately surrounded by conditions which preclude improvement or recovery.

The story of the tortures and hardships of the consumptive of moderate means, who leaves home and friends and attempts to make his way in a strange city while battling for health, would fill volumes. A large majority of those going to Denver are forced into office work or other clerical employment and to live in cheap boarding houses, where the food, ventilation and sanitation is poor to say the least. Under such conditions improvement is rare and recovery impossible.

The attempt will be made through auxiliary societies to reach these patients before they leave their homes in other states, so that they may be started on the search for health with as cheering an outlook as may be afforded by proper medical care, nourishing food, cheerful surroundings and an outdoor life in a sunny climate.

The problem of how best to care for the vast multitude afflicted with tuberculosis, and at the same time remove a great public danger has long puzzled the brightest minds in the medical profession. The subject has been discussed at every national and state meeting for years. Out of all the theories and schemes suggested, Denver physicians, after much careful study, have organized in an attempt to evolve something practical. In this they have had the advice of prominent doctors in other cities, who hope that the ultimate result will be the removal of consumptives from large cities, thereby solving another hard problem.

Their plan provides for the erection of a sanatorium about 20 miles from Denver, to be conducted as an industrial colony. A large amount of money will be required. This it is expected can be raised by the "cottage endowment plan."

To secure these endowments by individuals, fraternities, clubs, societies, churches, college alumnae, labor unions, etc., the Young Woman's Sanatorium Auxiliary has been organized. A branch of this auxiliary will be established in every city and town in the United States.

It will be the duty of this society to co-operate with the board of directors to secure money for the endowment of the cottages, to raise funds for a library, collect furnishings for the cottages and to interest wealthy people in the sanatorium. By utilizing the labor of patients it is expected that nearly all of the work of the institution will be performed, the entire sanatorium supplied with provisions, and a great variety of remunerative industries carried on. The industrial nature of the institution will enable patients to avail themselves of a change of climate while the disease is in its incipiency, and before they are incapacitated for light open air employment.

The motto of the institution is, "helping others to help themselves is the best charity." The institution is not for profit. No dividends can be declared, and the net earnings will be used for the improvement and betterment of the enterprise.

The incorporators of the Rocky Mountain Sanatorium are: William N. Gabbery, associate justice of the Colorado supreme court; Charles Hartzell, attorney; A. Mansfield Holmes, M. D.

The foremost physicians and business men of Denver are members of the directorate, and the boards of the different departments. On the general advisory boards are physicians of national reputation, belonging to the large cities from Boston to San Francisco. The Denver promoters declare that success can come only by the people of each state which has consumptive patients lending a helping hand in placing the institution upon a substantial working basis. Unless such co-operative support comes from citizens of other communities their invalids will, as heretofore, meet with hardships and disappointments.

The institution has been in operation in an experimental way for several months, and the results so far have been encouraging. Operations on a large scale will be begun as soon as the public becomes interested, and a sufficient amount of co-operation is secured. The Young Woman's Auxiliary is thoroughly organized, and has already taken steps to form branches in other places.

The International Trust company is the depository for the sanatorium, and donations of funds are safeguarded by the constitution, which gives the directors supervision of the expenditure of all moneys.

The benefits of the sanatorium are briefly set forth in the prospectus as follows:

It will remove a constant source of danger from the private homes and hotels of our cities.

It will provide home comforts and proper hygienic and sanitary conditions for patients.

It will provide treatment by specialists abreast of the times.

It will secure obedience of patients to the laws of health.

It will secure the advantages of climate long known to be of great benefit in checking tubercular processes.

It will furnish a home for patients who are financially unable to avail themselves of a favorable climate at a time when it will be of great benefit to them and at a time when they are yet able to perform light work and to be to a degree self-supporting.

It will furnish an opportunity to patients who are financially unable to pay for the privileges of the institution to take up light out-door employment suited to their tastes and ability, if they so choose, thus uniting the entire institution upon the broad plane of usefulness.

## HAS AN ANT A MIND, OR DOES IT SIMPLY MIND?

Taming an ant would seem to be an almost impossible feat, but it has been lately accomplished by the Jesuit father Wasmann, who is, after the English naturalist Lubbock, the man who knows most about these interesting insects.

Wasmann keeps many different tribes of ants in artificial nests. To these is connected a feeding tube terminating in a glass bulb closed by a cork. Into this tube, he remarked, one of the insects came regularly. It was easy to recognize it to be always the same, as it was particularly small and otherwise different from its companions. The creature licked up the honey or sugar placed in the bulb, and, having gathered a supply, returned to share it with its companions in the nest.

Wasmann then removed the cork, upon which the insect came out and sought around for food. He then approached it with the point of a needle dipped in honey. The ant at first shrank back, as if frightened; then gradually drew nearer, feeling about with its antennae, till at last it came up to the needle and licked off the honey. Later he accustomed it to take the honey directly from the tip of his finger, a surprising fact when we remember that the least unusual odor or the slightest movement outside their nest is either repulsive or terrifying to ants and drives them either to flight or to demonstrations of disgust. Wasmann succeeded in taming the insect so completely that at last it quitted the bulb immediately the cork was removed, came in quest of the honey on his finger, and at the conclusion of its repast, without any attempt at resistance or flight, allowed itself to be lifted on a bristle and carried back to the nest.

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A somnambulist by the name of Clifford Saddoris, residing near Clinton, Iowa, committed suicide while asleep, a few nights ago. He is known to have read a newspaper account of a suicide by the pistol route, during the evening before retiring, and, it is supposed that this made such an impression upon him that he took his own life in the same way.

Moral—Somnambulists should refrain from reading suggestive incidents.

## LOSES HIS MEMORY FOR SEVENTEEN YEARS.

A strange case of mental oblivion covering seventeen years has just come to light in Allegheny, Pa.

Seventeen years ago Charles Washburn was injured on the Chicago, Rock Island & Pacific road near Chicago. He came to Allegheny after being discharged from a hospital, and engaged in the paint business. He married an Allegheny woman, to whom he told nothing of his accident, and they have four children.

Several nights ago one of Washburn's daughters dropped a lamp. He became excited and fell to the floor groaning, "Oh, my head." He was put to bed unconscious.

The next day Washburn regained consciousness. "Was I much hurt in the wreck?" were his first words. He asked his wife if she was the hospital nurse. When she told him that he was raving and that she was his wife, he ordered her from the room, saying, "You're too fresh for a nurse."

He did not know his wife and children and indignantly denied ever meeting them. He claimed to be 24 years old, and shrank back when he looked at himself in a mirror. Physicians will recognize the complaint as amnesia.

## CINEMATOGRAPH FOR THE BLIND IN FRANCE.

Dr Dussaud, of the Psychological Institute of Paris, gave a lecture on February 16, at the Hospital des Sociétés Savantes, on the education of the blind and deaf. A large audience witnessed interesting experiments founded on his method for supplementing the senses of these two classes of unfortunates.

The cinematograph for the blind is a machine which passes under the fingers of the blind a series of reliefs representing the same object in different positions—the branch of a tree, a bird, or any other object. The blind person has the illusion of moving scenes just as photographs passing over a luminous screen lend the illusion to those with sight.

Dr Dussaud has also arranged an electric vibration for the use of the deaf who are incurable. This gives them the notion of musical rhythm. For those not entirely deaf, he has invented a "gradual amplifier of sounds," which supplements the organs of hearing and in some instances improves them.

Dr. Dussaud expressed the hope that these two inventions would materially aid in the education of the deaf and blind. The doctor gave a number of statistics already furnished by him to the Academy of Medicine and the Society of Biology, showing that his method had been applied during the last four years to more than three hundred patients affected either with blindness or deafness, and that in most cases the results obtained had been extremely satisfactory.—Scientific American.

## DETECTIVE THOUGHT HE HAD A BULLET IN HIS BRAIN.

Detective George W. McElfresh, of Washington, D. C., died a few days ago, and an autopsy proved that he had a splinter of bone within his cranium. For over forty years this man imagined he carried a bullet in his brain, resulting from a shot fired during the know-nothing riot in Washington, June 1, 1857. He was very proud of the wound which he received in the discharge of his duty, and had often said he could feel the bullet move about whenever he shook his head.

At the Eighth International Temperance congress, in session at Vienna last month, Dr. Meinert, of Dresden, made the startling statement that "the excessive mortality among doctors was due to alcoholism and morphine." This may possibly be true as regards the physicians of continental Europe, but it is believed that but a small percentage of practitioners of America are excessive drinkers, much less habitual drunkards, with a still smaller number addicted to morphine.

Up to about the middle of last month there were some 300 cases of typhoid fever in New Haven, Conn. The schools were not closed, but everybody in attendance was put on boiled water, which was placed in stone jars, none being taken from the hydrants.

# BIOGRAPHICAL SKETCHES.

## BENJAMIN RUSH, M. D.

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### PHYSICIAN, PATRIOT, TEACHER.

Born Dec. 24, 1745, in Byberry township, near Philadelphia, Pa., Benjamin Rush, M.D., after a long, busy and successful life, died April 19th, 1813. He was fortunate in having the great distinction in those days of being a graduate of the College of Princeton, and in obtaining his medical education at Edinburgh, Scotland. He was elected professor of chemistry in the medical college of Philadelphia, and later was chairman of the committee in the provincial conference of Pennsylvania, which reported "That it had become expedient for Congress to declare Independence." When Congress decided on taking that step, five members from Pennsylvania withdrew, and Dr. Rush and four others were elected to fill their places. Dr. Rush was one of the signers of the Declaration of Independence. In 1776, at the mature age of 31, he married Julia, daughter of Richard Stockton, of New Jersey, also one of the signers of "The Declaration." In April, 1777, he was appointed surgeon general of the army for the middle department, and in July following, physician general. In 1776 he wrote four letters to the people of Pennsylvania censuring their constitution, and it was superceded by a new form of government. In February, 1778, he resigned his post as physician general, on account of the wrongs done to the soldiers in regard to the hospital stores. As it was before the days of "Canned beef" there must have existed some other way to cheat and starve the poor soldier.

But it is chiefly as a physician and teacher that we have to deal with Dr. Rush and his life in this biography. Some other things that he accomplished were mere side issues in his busy career. In 1793, during the outbreak and ravages of yellow fever, he rendered extraordinary services, and by his bold and original practice made enemies, as most men of a positive nature do, and a paper edited by William Cobbett, called "Peter Porcupine's Gazette," was so violent in its attacks that he was prosecuted, and a jury rendered a verdict of $5,000 damages. The history from which these facts are gathered does not state that the money was collected.

Dr. Rush was eminently popular as a teacher in the medical school, and he wrote and published much on medical subjects. Among these are, "Medical Inquiries and Observations" (Vols. 5-1785-'98; 3d ed., 4 vols., 1809); "Essays, Literary, Moral, anl Philosophical" (1798; 2d ed. 1806); "Sixteen Introductory Lectures," etc. (1811); "Diseases of the Mind" (1812, 5th ed. 1835); and editions of Sydenham's and other medical works. He wrote many "Medical Tracts," containing essays on health, temperance, exercise, etc., which were published in a separate volume at an early period of his life. He was the first professor in this country, if not in the world, to give his medical classes any teaching on "Mental Diseases" and his clear and comprehensive mind even predicted the discovery of an anæsthetic for pain, saying in one of his lectures, "that he thought the time would come when something would be discovered to extinguish pain and not endanger human life."

Dr. Rush was treasurer of the United States mint from 1799 until his death. He was one of the founders of Dickinson College, and president of the society for the abolition of slavery, when this society was not popular in this country; he was, also, president of the medical society, and vice president of the Philadelphia Bible Society, and the American Philosophical Society.

The doctor left a son, Richard, a distinguished lawyer, who held many offices of honor and trust under the United States government.

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### "RUDOLF VIRCHOW FUND."

To the American Medical Profession:

On October 13th, 1901, Rudolf Virchow will be eighty years old. When he completed his seventieth year a fund was started in his honor to enable the great master to facilitate scientific research by establishing scholarships, and by encouraging special medical and biological studies. Contributions to that "Rudolf Virchow Fund" were furnished by those in all countries interested in progressive medicine, as a homage to the man whose name is always certain to arouse admiration and enthusiasm.

In Berlin a large committee, containing, amongst others, the names of A. Bastian, v. Coler, A. Entenburg, B. Fraerkel, O. Israel, Fr. Koenig, C. Posner and W. Waldeyer, has been formed to call for contributions which are to be added to the original "Rudolf Virchow Fund" so as to increase its efficiency. The committee expresses the opinion that in no better way, and in none more agreeable to the great leader of modern medicine, can his eightieth birthday be celebrated, and ask for the sympathy and co-operation of all those engaged in the study and practice of scientific medicine all over the globe.

The undersigned have formed a subcommittee for the purpose of making the American profession acquainted with the intentions of the Berlin committee, and urge their colleagues to participate in honoring the very man who has done more, these fifty years, than any other, to make medicine a science, and international.

Subscriptions should be sent to their secretary, who will receipt therefor.

Charles A. L. Reed, president of the American Medical Association.

Henry P. Bowditch, president of the Congress of American Physicians and Surgeons.

William K. Welch, Johns-Hopkins University.

Robert F. Weir, President of the New York Academy of Medicine.

A. Jacobi, 110 West 34th Street, New York, Secretary.

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The school board of Somerville, Mass., has ordered that hereafter all books on physiology shall be put into the hand of teachers only, in the primary and grammar schools. None will be allowed to reach the pupils in these grades. A short time ago the following order was promulgated: "In the primary and grammar schools, instruction in physiology and hygiene shall be entirely oral and that hereafter a single text book of the subject be furnished for the use of teachers only, and it is hereby required also that instruction be regarding the proper care of the body rather than the structural formations."

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It is related that the late ex-president Harrison, while making a search of the dissecting rooms of the Ohio State College in Cincinnati, for the body of a friend, known to have been stolen from the grave-yard of the little town where Mr. Harrison had lived, by a mere accident ran across the remains of his own father, which was in the institution as a cadaver, having been taken from the same cemetery by the ghouls who found it so convenient to supply material for dissecting in the medical schools of Cincinnati.

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Berlin has refused a legacy of $120,000 for an orphan asylum, as one of the conditions of the bequest was that the orphans should be brought up upon a vegetarian diet. Those who are making bequests should not thrust their fads on institutions, and Berlin is to be commended, as Breslau is to be condemned, in this matter, as the latter city expressed a willingness to accept the gift with the conditions imposed.—Scientific American.

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Quarantine Physician Sidney O. Heiskell, of Baltimore, recently recovered from a long attack of pneumonia, which he attributes to the timely use of pneumonia antitoxin. He said: "If there be nothing else to recommend the serum injection than the great relief it gave me, which morphia did not afford, I consider that sufficient to endorse its trial."

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John Strom, superintendent of the Minneapolis quarantine hospital met his death in a runaway accident last month. While driving into town for a patient his team became frightened and ran away. Strom was thrown out or jumped from his seat and fractured his skull. He died a few hours later at the City Hospital. The deceased was well and favorably known to a large number of physicians.

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## DECEPTION A PART OF THE PLAN OF CREATION.

When, without premeditation, the wisest of men declared "that all men are liars," he not only gave expression to his practical thought, but uttered an instructive truth that does not need any qualification, and one that is evidently prevailing all through the animal kingdom. In all these the first and great law of self-preservation is apparent. Among the lower orders nature's primary object is shown in so arranging colors and position as to deceive their enemies, and among the higher intelligences other and more decided means for misleading them, and thus avoiding dangers that threaten their peace, interests, and security. Insects are often of the exact color of their surroundings, or of the material of their food, being evidently the design of nature for their protection; if alarmed they can assume the appearance of substances that would be useless and rejected by their devourers. They can also simulate death and thus frequently escape unharmed. A species of spider builds its nests with trap doors, so constructed as to completely conceal its homes: and on the approval of suspected enemies closes them safely against all assaults. These are some of the created deceptive instincts of the little creatures.

Birds have a much higher brain development, and consequently exercise a much wider range of thought and ingenuity in avoiding their enemies by deceptive acts, and especially in protecting their young. What boy who ever frequented woods where partridge, quail and other feathered tribes inhabit, has not been tempted and deceived in chasing the mother bird who was apparently disabled by a broken wing, but she kept just beyond his reach until he was led to a safe distance from her young brood! How often is the hunter deceived by the sly woodcock, as Dr. Holmes says: "Clinging to fictitious mud to cheat the young sportsman thirsting for its blood!"

Still higher in the order of intelligence is the dog, faithful friend of man, yet capable of attempts to deceive him to protect himself from what he instinctively feels may be merited punishment. The well educated bird-hunting dog in the field for prairie chicken hunting is sometimes misled and will follow the trail of a gopher or turtle even to a point, perhaps, but when he discovers his mistake, and knowing the disgrace of such a blunder in the eyes of his master, he will endeavor to conceal it from notice by gradually increasing his circles of hunting until at a safe distance, when he will assume his more natural manner and movements.

The fox, well known for his astuteness in many ways, will try to throw the pursuing hounds from his scent by swimming rivers and ponds, doubling on his tracks, running in the hard icy sled tracks and on the top of stone walls, where his clumsy enemy finds it difficult to follow successfully. All these acts are instinctive, and yet applied in reason by his natural gift of deception for self-preservation.

We come now to the latest, and so far as we know, the highest created intelligence, man, and find another element in the deceptive instinct, namely, that developed by experience and education, morality. The question for solution is now, how far, if to any extent, should deception be practiced or tolerated in human intercourse? Some writer has said, "All deception is a misapplication of the established signs used to communicate thought." In the lower orders of nature deception is all by signs; but in man we have language, both written and spoken, in addition, to mislead and conceal thoughts. In regard to the question of moral right to deceive, circumstances must be allowed to sustain or reject that right in every case. For instance to deceive another for personal advantage or to his injury would be universally condemned; but to mislead one for his own benefit, or for what might be considered for the advantage of a community at large, would be not only proper, but morally right. The doctor in charge of a critical case or disease, knowing how slight causes of excitement might turn the balance of recovery to defeat, is fully justified in concealing the worst symptoms, and magnifying the best to encourage the patient and sustain his hope which is a powerful agent in aid of the vital forces. As with individuals, so with nations. "All is fair in war" it is said. Strategy and deception is approved by the law of nations, and both may be interpreted as perhaps contributing to the benefit of the parties contending. They may prevent collisions that would otherwise inflict tremendous evils to both governments. The late capture of Aguinaldo by General Funston, the result of a well conceived plan of deception, and an act that has called forth condemnation from some persons of national reputation, must be considered as a justifiable proceeding under the rules of war, and may be the saving of many lives and a vast expenditure of funds. Diplomacy in the intercourse of nations may be termed another name for strategy or deception, and the result of diplomatic conferences has often averted great disasters. Thus we are led to believe that deception, as one of the laws of nature is not an unmixed evil, to be always avoided, but on proper occasions, is a provision designed for the good of the world.

## CREMATORIES OUGHT TO TAKE PHOTOGRAPHS.

In the conduct of crematories throughout the country, we have never understood that those in charge ever made it a rule to photograph the corpses just prior to cremation, for the purpose of future proof that the bodies were those of the persons who in life had gone by the names given by those who brought them to the institution to be consumed by the flames. This is an important matter, and may be in some cases a very serious one. It would be easy enough for the substitution of the body of some other person than the remains of the person whose name is given to be added to the roster of the cremated dead. If a murder has been committed it may be necessary to cremate the body to forever hide the evidence. In such a case no photograph would be useful or necessary. But a man may imprison another person, and would like to have it appear that that person had died a natural death, in which case all the former would have to do would be to secure another body, ship it to a crematory and giving the name of his prisoner, the plot would be complete, and in so far as the records go the unfortunate prisoner is dead and cremated, and only future events can unravel the mystery. Whether any such case as the above has yet occurred since the inauguration of the crematory the writer is not informed.

However, there is a strange case which happened not long ago out in Montana. It is reported that a quite wealthy woman out that way called at the house of a supposed friend one day, and was not afterward seen by her family. The man on whom she called who is said to be a physician claimed that she was taken very sick, and soon died, but that before passing away had made her will devising most of her property to him, and that her body had been sent to a crematory where it was cremated. The records at the institution are said to be all right, but there is no evidence that the body cremated was that of the woman.

It would certainly be a wise move for the managers of all these "charnel" houses to equip themselves with photographic outfits and, in each case, take a photograph of the body before making the final disposition of it in the furnace, and to label it with the name given and attaching same to the records for any future emergency that might arise.

## OUR RIVER WATER.

According to an interview appearing in the Daily Journal a few days ago Register Frank Moody is made to say: "I dare say the water from the lower stations is bad enough, but I for one am not going to concede that all the typhoid now existing in Minneapolis is due to this cause. There is nothing to support that theory as yet, that I can see, except the statement of certain physicians. Now, we ought to have something more than that before denouncing the West Side station water as utterly bad."

Here is something which Mr. Moody calls for that is right in line with the above. It is the report of the City Bacteriologist, Dr. J. Frank Corbett, which he has especially prepared for the Medical Dial, and which goes into such details as should be convincing:

To the Editor of the Medical Dial:

Following is my special report on river water taken from the North Side station, from the reservoir, and from the West Side:

| Date. | N. Side Station | Reservoir | W. Side Station | E. Side Station |
|---|---|---|---|---|
| 12-29-99 | 170 | 160 | 186* | .... |
| 6-11-00 | 1280 | 3264 | 1984 | .... |
| 6-22-00 | 134 | 217 | 256 | .... |
| 7-13-00 | .... | .... | 1800 | 8640 |
| 7-7-00 | 774 | 1344 | 14784 | .... |
| 10-15-00 | 300 | 704 | 2170 | .... |
| 2-5-01 | 646 | 512 | 1728 | .... |
| 2-19-01 | 1344 | 832 | 3200 | .... |
| 3-4-01 | 640 | 6 | 1152 | .... |
| 3-18-01 | 214 | 6 | 320 | .... |
| 4-3-01 | 435 | 390 | 466* | .... |
|  | 5937 | 7443 | 28046 | 8640 |

These reports cover all those instances where specimens have been simultaneously taken from the above indicated stations.

By the above we get an average of 594 bacteria per cubic centimetre for the North Side station; 744 bacteria per centimetre for the reservoir, and 2549 per cubic centimetre for the West Side station. This shows that in a tolerably swift stream for a distance of 4 miles the number of bacteria has been increased over

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*Specimens so marked contain coli commune, indicating sewerage contamination.

400 per cent. This indicates a marked contamination. Further, in the water from the North Side station no colon bacilli have ever been found. I do not say they do not exist but I have been unable to demonstrate them. On the other hand, I will call attention to the fact that they have been found in two instances in water from the West Side station. This indicates direct sewerage contamination.—J. Frank Corbett, City Bacteriologist.

## A FEW MARRIAGE REGULATIONS.

Our recent legislature passed a law, which if enforced will prevent the consummation of the marriage contract, within the borders of our state, between imbeciles, the feeble-minded, epileptics and the insane. But the law will be inoperative in most cases, for the simple reason that nearly every couple bound to wed will find the means of making a trip to a neighboring state, and there securing the services of the proper minister or civil officer.

Section one of this new law reads as follows: "No woman under the age of of forty-five (45) years or man of any age, except he marry a woman over the age of forty-five (45) years, either of whom is epileptic, imbecile, feeble-minded or afflicted with insanity, shall hereafter intermarry or marry any other person within this state. It is also hereby made unlawful for any person to marry any such feeble-minded, imbecile or epileptic person or any one afflicted with insanity." The other sections of the bill prescribe the proper penalties, which are not more than $1,000.00 or imprisonment in the penitentiary not to exceed three years, applicable to any person violating any of the provisions of the act, including the official who issues the license, or the person who solemnizes the marriage.

This law is a step in the right direction, and if all the states will follow suit the coming generation will see a considerable diminution in the number of the mentally afflicted and the neurotic.

## WHY NOT CLEAR THE RESORTS OF MOSQUITOES?

The thousands of visitors to the beautiful watering places of the northwest would find it a great deal more delightful if these localities were free from mosquitoes. Eastern people have, in a large measure, cleared their watering places of these pestiferous biters and purloiners of refreshing sleep: heretofore it being necessary to spend the nights behind a screen. Their somewhat complete eradication has been accomplished by the timely application of kerosene to all the breeding places, requiring only about one ounce of oil to every fifteen square feet of water surface. The Woman's Improvement Association, of St. Anthony Park, Minn., have commenced a fight against the mosquito, and the result of their warfare will be watched with considerable interest. But other localities would do well to follow their example, and enjoy one summer, at least, in comfort. The cost of the material is trifling, and the labor of applying the oil is not very much when the results, that are so far-reaching, are taken into consideration.

## PRIVATE FOUNDLING HOMES ARE REGULATED.

A bill passed by the last Minnesota legislature regulates persons engaged in conducting homes of midwifery, as well as those conducting the business of caring for infants under two years of age. Both classes must secure permits. No person may accept the care of more than one infant during a period of six months without a license, but the bill makes no provisions for twins or triplets. According to the wording of the act it would appear that in order to secure the care of twins or triplets whose mother died during child-birth or soon after, the person receiving them must go through a process of law in order to take their care; but it is probable however, that no person would ever think of making trouble in this direction.

The law is a good one. Under its provisions any person wishing to engage in either or both of the above employments must apply to, and obtain a permit from, the health officer of the city, village or town, or if there be none, from the county physician, which permit must be filed in the office of the city clerk, or clerk of the village or town. Applicant must first have a certificate from the medical board of the state to practice midwifery when she wishes to care for mothers during confinement. If her business is to be confined to the care of infants she must secure a permit showing good character, etc.

## REGARDING THE DEATH RATE OF THE TWIN CITIES.

Why St. Paul should have a lower death rate than Minneapolis during the year 1900 is beyond comprehension, but the records seem to indicate that the former city had a percentage of 10.79, and the latter 11.08 per thousand. Climate has a great deal to do with the low rate in both cities, but when our river water is purified by the new filtering plant, St. Paul better look out for a much lower figure in the percentage rate. Another factor in the happy condition of the Twin Cities must be attributed to the vigilance of all the health officials of both towns, and the counties of Hennepin and Ramsey.

## DOUBLE MONSTROSITY.

In the Medical Gazette, of Paris, for March 30th, 1901, the double monstrosity of the Chinese brothers, Liou-Tang-Sen and Liou-Seng-Sen is reported with minute details as to their measurements both in size of heads and the extent of their connection by the Ziphoid cartilages being given. The case is very much like that of the twin girls of South America reported in previous numbers of the Dial (See Vol. I., page 349, and Vol. II., page 254), with the result of separation, by cutting through the liver, one dying some days after the operation. In the Paris case, as there is but one umbilicus it is supposed there may be but one liver, situated in the peritoneal cul de sac; nevertheless, by the skiagraphs their separation looks feasible. We hope for a further report of this interesting case.

## THEY KILL MOSQUITOES IN HAVANA.

Dr. W. C. Gorgas, major and surgeon, U. S. A., the chief sanitary officer of Havana, in making his report for the month of March to the adjutant general, department of Cuba, invites particular attention to the condition of that city with regard to yellow fever. There were but four cases and one death. The only two years since 1899 showing as small a number of deaths as in March of the present year, were in 1892 and 1899, there was one death in each year during the month. After the 23d of March, 1901 during the remainder of the month the city was entirely free from the disease. Dr. Gorgas gives his reasons for this happy condition as follows:

"I think our present freedom from fever is in part due to the systematic and extensive way in which we have been killing the mosquitoes for the last month. I have the greatest hopes of destroying the foci as they appear by systematically killing the mosquitoes over a large area around each focus as it occurs."

The grip is said to be playing havoc among the natives of Guam.

## ACCIDENT IN GIVING CREDIT.

In the last issue of the Medical Dial there appeared an article entitled "Quinine as an Antipyretic," commencing on page 82. This paper was from the pen of J. Hobart Egbert, A.M., M.D., Ph.D., and was written especially for Merck's Archives, New York City, having appeared in that journal in its October, 1900, issue. Through an accident of publication no credit was given to the above journal; hence this explanation.

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Professor H. R. Gaylord, of the University of Buffalo claims that cancer is caused by an animal parasite, which, to use his own words, "he has identified and isolated in the New York state cancer hospital. And," says the professor, "In reviewing all the material and evidence accumulated in the laboratory in the last three years I conclude: That the organism of cancer is a protozoön, and that the observations of Pfeiffer in 1891 were essentially correct. That it can be injected into an animal and recovered from the organs and blood of the animal. That from an animal so infected others may be infected, according to their susceptibility. That the organism can be demonstrated in the tissues of those animals and that under proper conditions those organisms and cultures, especially when growing in the peritonial fluid, retain their virulence and are capable of producing carcinoma or cancer in animals. A peculiar feature about the parasite is the length of time required to develop a culture which accounted for the failure to fully identify it before."

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The osteopaths of Wisconsin have wormed their way into a partial recognition in that state through the legislature, where a bill was brought up to allow them to practice in certain cases, and giving them one member on the state medical board. It is hard to forecast the dubious ways of the average politician.

The upper levee at St. Paul was visited by the health authorities April 21, and the whole colony vaccinated. A case of smallpox was discovered there. No precautions had been taken by the neighbors to prevent the spread of the disease.

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Dr. Ancker has been elected city physician of the city of St. Paul, and county physician of Ramsey county.

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## THE STATE MEDICAL EXAMINATION.

The new state board of medical examiners held a session on the 12th ultimo and examined applicants for certificates to practice medicine.

P. A. Hilbert of Melrose was elected president, and C. J. Ringnell of Minneapolis, secretary. The board of directors includes these two officers and W. W. Drought, Fergus Falls; Adele S. Hutchinson, Minneapolis; L. A. Fritsche, New Uulm; Thomas Lowe, Slayton; W. Davis, St. Paul; A. F. Groves, Brainerd, and A. G. Stoddard, Fairfax.

Those who successfully passed the examination and are now full-fledged M. D.'s are as follows:

Minneapolis—Danforth C. Cowles, John W. Doyle, Erle E. Benedict, Sidney S. Farmer, Edward A. Eberling, Hiram E. Cleveland, Catherine E. Putnam, Frederick A. Kiehle, Herbert W. Jones, Roy E. Mitchell, C. Francis Ewin, Louis H. Fligman, Harley G. Blickford, Joseph R. Truscott, H. A. Cohen, Edward D. Spear, William N. Thiessen, William Mack Chowing, Luther A. Davis, Martin I. Golberg, Clara M. Luther, Arne A. Stemsrud, Robert B. Lees, Frank Rose, Leslie O. Dart, Rufus J. Cassel, Floyd M. Day, Archibald E. Levinson, Francis J. Savage, John J. Donovan, H. Joureay Wells, Mary P. Hopkins, Ernest L. Blackman, Claud F. Holst, Harvey G. Parker, Sterling H. Olson, Owen Evans, Charles A. Houstan, James A. Sanford, Emil H. Beckman, William P. Baldwin, Lester A. Dickman, R. Emmet Farr, Bertram S. Adams, Finn Koren, Peter H. Muss, James Blake, Nils A. Bjorn, Swan A. Carlson, Grant S. Carpenter, Paul H. Burton, John E. Campbell, Samuel E. Sweitzer, William H.

Aurand, Victor J. LaRose, Charles W. Doran, George B. Moore.

St. Paul—Charles N. McCloud, Mabel F. Austin, Gust A. Eisengraeber, Adrian Kirghis, Robert C. Farrish, Thomas J. Maloney, John A. Healey, Jacob Prinzing, Harold L. Stolpestad, Alson J. Foster, John C. Whitacre.

Rose W. Vallely, New Haven, Minn; Andrew J. Ames, Chicago; James E. Carmen, Detroit, Minn.; Samuel C. Schmitt, Mankato; John T. Leland, Tintah, Minn.; J. W. Johnson, Sheboygan, Wis.; Charles P. Aling, Stillwater; G. L. Hughes, Ostrander; Henry A. Schneider, Deerfield, Minn.; Rudolph A. Beise, Fergus Falls; Joseph M. Allen, St. Anthony Park; T. Arthur Bayley, Forest Lake; John M. Fox, Corcoran; Ernest J. Cheney, Ashland, Wis.; Elmar H. Parker, River Falls, Wis.; Joseph Flynn, Stillwater; Babara W. Chase, Blue Earth; O. E. Bennett, Lamberton; Henry F. McGuigan, Wabasha; Walter M. Beck, Hanley Falls.

## A NEW SWEDISH HOSPITAL FOR MINNEAPOLIS.

The Swedish Hospital and Nurses' Institute, of Minneapolis, has decided to erect a large hospital at the southeast corner of Tenth avenue and Eighth street South, facing Elliott Park. This location is diagonally across from the New Asbury hospital. The estimated cost of this fine new structure will not be less than $50,000. Their present location is in rented quarters at 1419 Ninth street south, which has for some time been too cramped to accomodate all the patients seeking relief. The organization is to be congratulated on its success in raising the needed funds, and in the motive that prompts the effort to furnish adequate facilities in surgical and remedial treatment and the nursing of the afflicted.

The association was incorporated in August last, by C. A. Smith, N. O. Werder, president of the Swedish National bank, E. G. Dahl and A. B. Darelius. Quite a number of physicians of Swedish blood became heartily interested and pushed the good work along.

The hospital will be three stories high, will cover 60 by 105 feet of ground, and will be fire-proof. An old building now on the ground will be remodled into a nurses' home. The new quarters will be built according to the very latest ideas in hospital construction. From the Minneapolis Daily Journal we continue a further description.

"The engine and boiler rooms, with apartments for the heating plant, will be put in a separate building. The hospital will be heated by a fan system different from any used in this city before. The building which will contain the heating plant and other essentials will be erected in the rear of the hospital in order that all room in the main building may be available for bed space and for operation and laboratory purposes.

"Almost without exception the interior of the hospital will be finished in polished brick and the bath rooms in marble, with tile floors. On the first floor, immediately on the right of the entrance, will be the superintendent's office, and a private office; on the right a reception room, and directly in front as the building is entered, will be the main stairs.

"Patients will be taken in through a separate entrance on the Eighth street side, which is immediately connected with an elevator. The hospital will accommodate, when completed, nearly 100 patients, and will also have a first class operation room on the third floor, finished in marble.

"The building will be brick, strictly in the Italian renaissance style and will be finished on the exterior with a light buff or gray pressed brick."

## AS THE LAYMAN SEES THE DIAL.

In its issue of the 16th the Minneapolis Daily Times reviews the April number of this journal as follows:

"The Medical Dial for April, a Minneapolis journal, opens a new department in 'Questions and Answers,' and solicits the interest of other physicians in attention to the new feature. There is a communication from the president of the Minnesota Association of the Deaf in relation to the board of control bill, in which he states the peculiar relations of institutions for the deaf and other state institutions, and asks that 'the school for the deaf and school for the blind may remain under the management of a separate board.' Mr. Howard's position is in line with many of the criticisms which have been made upon the legislative action. The editorial department discusses the pure water question, and the range of self-limiting diseases—both large subjects and remarkably well and concisely handled, considering the self-limiting nature of an article on an editorial page. It seems a pity that when so little was said so well there could not have been more of the same. The layman would like much to know further about self-limiting diseases, but it certainly appears a dangerous topic for the physicians to handle, unless it be true that the function of the physician in future will be largely in the realm of prevention and the scientific study of causes. Dr. Hoegh of Minneapolis has the opening original article on 'The Radical Cure of Femoral Hernia.' "

## SMALL-POX BREVITIES.

A patient in the Catholic parochial school of New Ulm, was last month found to be afflicted with the malignant form of small-pox. One of the pupils of the school was the victim. No alarm was created, the patient being promptly quarantined.

At Ellsworth, Wisconsin, the suspected cases of small-pox under quarantine, have been released.

The citizens of Brown's Valley, Minn., appealed to the state authorities for protection against the small-pox epidemic raging among the Indians of the Sisseton reservation, across the line in South Dakota. They wired the state board of health, asking that stringent measures be taken to guard them. They stated that guards had been placed on the roads to prevent any one crossing the Dakota line. A later message, direct to the governor of the state, stated that there were 100 cases on the reservation. A strict quarantine was instituted by the state officials.

Several hundred cases of small-pox occurred in Humbolt county, Iowa, last month, but the disease was entirely stamped out, according to the latest reports. Quarantine was rigidly enforced

There have been over twenty cases of small-pox at Greenfield, Wisconsin. It is claimed that a wrong diagnosis was made of the first case, as chicken-pox, which was the cause of the spread of the disease.

The authorities of West Superior have inaugurated stringent measures to stamp out small-pox in that city. All lumber "jacks" are thoroughly "investigated."

The first death from small-pox in the Black Hills occurred on the 20th of April —a Mrs. Graston. There were said to be other cases in the Hills, and on the ranges.

It is claimed that the health officers of South Dakota are slow to institute drastic measures against the Sisseton district, where there are numerous small-pox cases. Sisseton claims, however, that there were but three cases there, and that these had about rcovered. Milbank and Webster, S. D., have quarantined against Sisseton, the Sisseton agency and Peever.

## FOUR HUNDRED QUARANTINED.

A curious state of affairs exists at Hudson. It is reported through the associated press that four hundred lumber "jacks" were quarantined at Hudson, Wisconsin, on account of some of them having the small-pox. They were on their way to their homes at Stillwater, from their camp at Gordon, where they had been employed all winter. It is said that the superintendent of the railroad refused to carry the men to their destination, and detained them at Hudson, at which place all were quarantined.

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It is said that American medical books are in the supremacy in England, this being brought about during the past few years by the introduction of books on diseases of children, pathology, surgery and medicine. These have already displaced English works on the same subjects.

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Dr. Cobb of the United States marine hospital and sanatorium at Ft. Stanton, near Alomogordo, N. M., has been ordered by Surgeon-General Wyman to proceed to San Francisco and make an exhaustive study of the bubonic plague situation.

# SOCIETY REPORTS.

## THE ST. PAUL MEETING AND YELLOWSTONE PARK.

Arrangements have been completed for an excursion of the members of the American Medical Association to Yellowstone Park. The Committee of Arrangements has finally succeeded in pursuading the officials to open up the park a week earlier than usual in order to accomodate the Association. A special train will be run from St. Paul to the Yellowstone Park and the railroad officials have promised to do everything in their power to make it satisfactory to all concerned. The rates will be very low, but how low cannot at this time be definitely stated. Those who attended the meeting in 1882 will remember with much pleasure a similar excursion that was run at that time, and these will not need to be informed that the one now proposed will be full of enjoyment. Further announcements will be made later. The Yellowstone National Park contains more natural wonders than are to be found anywhere else in the world, and this will be a rare opportunity for our Eastern friends to see what this portion of our Great West possesses.

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Rev. James R. Adams, of Waterloo, Iowa, pastor of the Zion church of that city, has denounced the Iowa state board of health for the manner in which the small-pox cases of the state had been handled, and has announced that he will not close any of the Zion missions on account of any orders to vaccinate which the board might hereafter make.

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Several hundred children who were barred from attendance at the public schools of Duluth because they had not been vaccinated, were permitted to resume their studies, on account of the improved conditions in that city.

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A novel exhibition was made at one of the hotels of Philadelphia recently. A young electrical engineer tested a new apparatus, which he had just invented, on several deaf and dumb pupils from an asylum, by which the latter were permitted to hear sounds for the first time in their lives.

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## AMERICAN CONGRESS OF TUBERCULOSIS.

It is announced that the second annual meeting of the American Congress of Tuberculosis will be held at the Grand Central Palace, in the city of New York on the 15th and 16th days of May, 1901, in joint session with the Medico-Legal Society of New York. That a dinner will be given to the members and guests. It is proposed to open a museum of pathology, bacteriology, and public health, with an exposition of electrical and other instruments; with the use of the power furnished at the building, which it is intended to be made most complete, educating and attractive: of all appliances used in any way in arrest or treatment of the disease.

The leading manufacturers have enlisted already, many of them, and the display will be on an extensive scale. The objects of the congress will be to exchange the information and experience gained throughout the world as to forces and methods most available for the extermination of consumption, which at the present moment is a disease, the most destructive of human life of any that now afflicts humanity.

The medical profession of all countries will be invited to contribute papers to be read before this congress, in their behalf by a committee selected for that purpose; in case of the inability of the author to attend; and to enable those who could not hope or expect to be present, to participate in the work and usefulness of the body. As the questions to be discussed involve remedial legislation, legislators, lawyers, judges, and all publicists, who take an interest in the subject, are also invited, both to enroll and contribute papers.

The papers should be forwarded to the secretary forthwith. The enrolling fee will be $3, entitling the members of the Bulletin of the Transactions free.

The governors of the American states and territories, and of the Dominion of Canada, have been invited to send three or more delegates from each state or province.

The presidents of the South and Central American Republics have been invited to send delegates, and to take an active part in the work of the congress, and the ministers of these republics at Washington, to designate representatives from their respective countries, and also to furnish information as to the progress of the disease, and what action in the way of preventive legislation or medicine, has been taken to avert it.

The congress has taken the entire large, lower floor of the Grand Central Palace for the occasion, with a space for exhibitors of nearly 200 by 200 feet, with committee rooms on the other floors, and the exhibition of electrical and surgical instruments, and the clinical work relating to the disease, will be illustrated by a display it is hoped may excel any before made in this country.

Contributions from boards of health, hospitals, and the collections of the government, will be allowed to be shown in the museum that is hoped to be large and impressive.

## MEDICAL SOCIETY OF THE MISSOURI VALLEY.

The semi-annual meeting of this society was held in Omaha, March 21, under the presidency of Dr. V. L. Treynor, of Council Bluffs. After disposing of fifteen interesting papers the members repaired to the banquet hall of the Paxton and there regaled the inner man. The flow of wit and humor was continuous throughout the evening. Dr. D. C. Bryant acted as toastmaster, introducinging the following speakers: "Preventive Medicine and Politicians," Dr. V. L. Treynor; "How We do it in Missouri," Dr. Chas. Wood Fassett; "The physician Himself," Dr. W. O. Bridges; "A specialist's Opinion on Too Much Talking," Dr. Donald Macrae, Jr. The next (annual) meeting of the Society will be held in St. Joseph, September 19, after which the members wil be tendered a complimentary outing to Eureka Springs, Arkansas.

## AMERICAN ACADEMY OF MEDICINE.

The 26th annual meeting of the American Academy of Medicine will be held at the Hotel Aberdeen, St. Paul, Minn., on Saturday, June 1st, 1901, at 11 A.M. (Executive session; the open session beginning at 12:00 M.), and continuing through Monday, June 3d.

The principal features of the meeting will be a symposium on "Institutionalism;" and another on "Reciprocity in Medical Licensure." Series of valuable papers on both topics have been promised, as well as interesting papers on some other subjects. The president's address (Dr. S. D. Risley, of Philadelphia) will be delivered on Saturday evening, June 1st, and the annual Social Session held on Monday evening, June 3d.

Members of the profession are always welcomed to the open sessions of the academy. The secretary (Dr. Charles McIntire, Easton, Pa.) will be pleased to send the program, when issued, blank applications for fellowship, etc., when requested to do so.

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The Board of Corrections and Charities of the city of Minneapolis has ordered that a new contagious ward be established at the city hospital. It will take fully three months to fully equip the new addition.

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Leicestershire, England, is said to be a hot-bed of anti-vaccinationists. Not long ago the authorities of Leicester began the prosecution of 60,000 defaulters under the vaccination act. Six test cases had been started, but all had been withdrawn for various causes.

## MINNESOTA VALLEY MEDICAL ASSOCIATION.

To the Editors of the Medical Dial:

Dear Doctors—The semi-annual meeting of the Minnesota Valley Medical Association will be held at the Saulpaugh Hotel, in the city of Mankato, on Tuesday, May 7th, 1901. The meeting will be called to order at 9:30 A. M. The afternoon session will convene at 1:30. We have a most excellent program, as follows, and the session will be highly entertaining, as well as profitable:

Invocation—Rev. F. G. R. Miller, of Mankato.

"Asphyxia Neonatorum"—Dr. E. W. Benham, Lake Benton.

Discussion opened by Dr. Z. G. Harrington, Mankato.

Report of Case and Presentation of Specimens—Dr. L. F. Schmaus, Mankato.

"Peritonitis, Diagnosis and Treatment"—Dr. J. W. Bell, Minneapolis.

Discussion opened by Dr. F. Shefcick, Mapleton.

"Treatment of Abortion"—Dr. Helen Hughes, Mankato.

Discussion opened by Dr. G. F. Merritt, St. Peter.

Report of a case of "Interstitial Nephritis and Aortic Aneurism" presenting unusual features—Chas. Lyman Green, St. Paul.

"Appendicitis from a Medical Standpoint"—Dr. R. N. Jackson, Faribault.

Discussion opened by Dr. F. A. Dodge Le Sueur.

"Appendicitis from a Surgical Standpoint"—Dr. O. C. Strickler, New Ulm.

Discussion opened by Dr. A.E.Spaulding, Luverne.

"Diagnosis and Treatment of Intestinal Obstruction"—Dr. J. H. Dunn, Minneapolis.

Discussion opened by Dr. H. C. Cooney, Princeton.

port of two successful extirpations—Dr. W. J. Mayo, Rochester.

Discussion opened by Dr. H. W. Workman, Tracy.

"Ossification of the Eye Ball"—Dr. Thomas McDavitt, St. Paul.

Discussion opened by Dr. J. H. Williams, Lake Crystal.

"Corneal Ulcer Diagnosis and Modern Treatment"—Dr. J. H. James, Mankato.

Discussion opened by Dr. E. J. Spratt, Minneapolis.

N. B.—We have a large program for one day's convention, therefore, members of the society are respectfully requested to be promptly on hand at the beginning of each session, as the president will call the society to order promptly on time.

Dr. O. H. McMichael, President
Dr. E. D. Steel, Secretary.

Program Committee:
Dr. J. W. Andrews,
Dr. C. O. Cooley.
Dr. J. W. Daniels.

# BOOK NOTICES.

THE INTERNATIONAL MEDICAL ANNUAL: a Year-book of Treatment and Practitioner's Index. Thirty-four Contributors. 1901. Nineteenth Year. New York and Chicago: E. B. Treat & Co. Price $3.00.

As heretofore, the present volume of the International Medical Annual is fully up to standard, and in some respects is better than the preceeding issues. A special article on toxins and antitoxins appears in the department of therapeutics, by Prof. McFarland, of Philadelphia, and Dr. William Murrell.

The latter also contributes an article on "light" treatment. There is no question about the injurious effect of excluding sunlight from our homes by shades and curtains, and a better understanding of its beneficial effects in the treatment of diseases, and that of artificial light also, will be followed by good results.

Prof. Ruata, of the University of Perugia, Italy, furnishes an article on tuberculosis, written in English by himself. There are special articles on x-ray work in medicine and surgery, by Dr. Macintyre, of Glasgow; on colour-blindness, by Dr. Edridge-Green: and on dental and oral surgery, by Mr. Turner, F.R.C.S. This year's number is of extremely practical value to the general practitioner.

TUBERCULOSIS AS A DISEASE OF THE MASSES, AND HOW TO COMBAT IT. The Prize Essay by S. A. Knopf, M.D., New York. The "International Congress to Combat Tuberculosis as a Disease of the Masses," which convened at Berlin, May 24th to 27th, 1899, awarded the International Prize to this Work through its Committee on July 31st, 1900. New York City, 200 W. 96th St.: M. Firestack. Price 25 cents; cloth 50 cents.

This is a remarkably terse presentation of the subject, in terms that the intelligent layman can readily understand. It ought to have a wide circulation through the public health officials.

THREE THOUSAND QUESTIONS ON MEDICAL SUBJECTS. Arranged for Self-examination, with proper References to Standard Works in which the Correct Replies will be found. Third edition, enlarged With Questions of the State Examining Boards of New York, Pennsylvania and Illinois. Philadelphia: P. Blakiston's Son & Co. Price 10 cents.

A very excellent self-quizzer.

# QUESTIONS AND ANSWERS.

## SIGNS OF OVARIAN CYST.

Question (4)—What are the infallible signs of ovarian cyst?

Answer—Ovarian cysts have certain quite distinctive symptoms which differentiate them from other abdominal tumors, which, taken together, will establish an almost positive diagnosis, but, taken individually, are subject to many exceptions, and, even taken together, are not positively infallible.

The most prominent symptoms of ovarian cyst are:

1. Fluctuation; which may be present in ascites, fibro-cyst of the uterus, extra-uterine pregnancy, or normal pregnancy, etc., and may be absent in ovarian cyst with very thick or tense walls.
2. Dulness on percussion over tumor; which may be present in any abdominal tumor; or may be absent in ovarian cyst when intraligamentous, or held back by adhesions.
3. Flank resonant; which may be present in any abdominal tumor, encysted ascites, etc., and may be absent in ovarian cyst when it is flaccid or ruptured.
4. Relative dulness and resonance, unchanged by change of position; which may be present in encysted ascites, or any abdominal tumor; and may be absent in ovarian cyst when complicated by ascites.
5. Uterus normal in size; which may be present in pediculated myomata or any abdominal tumor, except pregnancy; and may be absent in ovarian cyst when complicated by pregnancy or uterine tumor.
6. Asymetrical when first noticed; which may be present in any abdominal tumor; and may be absent in ovarian cyst when not observed early.
7. Facies ovarina; which may be present in any rapidly wasting disease; but it is always a late symptom.
8. Menses unchanged or diminished; which may be present in any form of tumor of the uterus; and may be absent in ovarian cyst if complicated by myoma.

It will be noticed from the above that there is no one infallible sign of ovarian cyst. Even with the abdomen open, it is not always possible, without a complete examination of the whole tumor, to determine its character. The writer has notes of a case in which there was fluctuation, dulness over the tumor, flank resonance unchanged by change of position, uterus normal in size, the tumor first noticed on one side, and the menses regular and unchanged in amount. The tumor was diagnosed as an ovarian cyst with thick walls, and yet, the operation proved that it was a fibro-cyst of the uterus, with a small attachment to the uterus.—A. W. Abbott, 21 S. 10th st.

## OPERATING FOR ANAL FISTULA

Question (5)—What is the latest technique in operating for anal fistula?

Answer—In answer to the above question, the writer would answer that the technique is in general the same as it has been for centuries; viz., laying open the fistulous tract, removing with the curette and scissors all unhealthy tissue, permitting the wound to heal from the bottom. Now and then a surgeon will try to excise the fistulous tract and unite the opposing tissues with ordinary sutures. Occasionally, a fistulous wound treated in this manner heals in a highly satisfactory way, but the concensus of opinion of those who have the greatest experience is, to follow the old lines of practice, and then you know it will heal and stay healed.—C. M. Ferro, 404 Masonic Temple.

Answer (2)—One must be guided by the individual case, but in general it may be stated, that the patient, having been previously prepared by thoroughly emptying the bowels, and having the surrounding parts shaved and cleansed, is anæsthetized and placed in the lithotomy position. The sphincter is then divulsed and a small quantity of milk (or colored fluid) is injected into the external opening to ascertain the direction of the fistulous tract and the internal opening. A grooved director is then passed and brought out of the anus, after which the tissues are divided at a right angle to the sphincter. The entire tract is then thoroughly curetted, firmly packed with iodoform gauze, anl left to granulate. The dressing is renewed after 24 hours and the wound loosely packed each day thereafter. Morphine is not given subsequent to the operation, except in individual cases to allay pain.—C. W. Malchow, 806 Andrus Building.

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## THERE ARE NO OTHERS.

According to dispatches, a verterinary surgeon, of Camden, N. J., has become the distinguished father of a whopping big baby. It is a prize baby, and the real thing. It's a boy of course, and said to be the picture of his sire. There may possibly be others, but according to the best reports, there is no bigger boy on record; large girls are not of enough consequence to be recorded.

This youngster first made his appearance on the First day of March. The boy weighed 25 pounds and five ounces, by avoirdupois weight, not by the pharmacist's scales, and arrived at the home of Dr. and Mrs. Edward McCarthy, of No. 1426 Ferry avenue, Camden, N. J.

The arrival of the young giant was made known to several local physicians a few minutes after 4 o'clock, and none of them would believe that the child could weigh so much until a delegation called at the house and weighed the infant themselves. The boy is perfectly healthy and as strong as a baby several weeks old.

Mrs. McCarthy is 46 years old and weighs 250 pounds. She has 16 children most of whom are living.

Twelve of them were in the next room when the child was born, and all ventured guesses as to the weight of the new arrival, but not one guessed within 10 pounds.

The father is a prominent veterinary surgeon, 55 years old and weighs 225 pounds.

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## UNNEIGHBORLY.

Hoax—You're a fine fellow!

Joax—What's the matter?

"You've given your wife a twenty-five dollar bonnet."

"Well, you don't have to pay for it."

"No; but I have to pay for another one just like it for my wife."—Philadelphia Record.

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At a total expense of about $17,000, the city of Minneapolis has erected a garbage crematory, which has just been put in "commission." It is said to be a very satisfactory combination for the destruction of the city's garbage. No fuel, other than the refuse itself, will be necessary.

A TOBOGGAN SLIDE ON A SHOVEL AND A MINER'S PAN. Two miners slide down the mountain side in Wyoming on a wager. Both are picked up from the depths of snow into which they plunged, not much worse for the experience.

The story is told that a couple of miners, one mounted on his shovel, and the other on his prospecting pan, struck a gait going down a very steep declivity such as was never known before.

It is difficult to imagine a more dare devil and thrilling adventure than that of two men sliding down a steep, ice-crusted mountain, one in a prospector's pan and the other on a miner's shovel. Yet such a hazardous undertaking was accomplished by Pete McGoff and "Yankee Bill" Murphy, miners and prospectors in the Sierra Madre mountains, when they flew like the wind down the side of the treeless Quartsite mountain, a distance of two miles, with a descent of about thirty-five degrees and landed in twenty-five feet of snowdrift in the forty-foot chasm of Cow creek, a few miles west of Grand Encampment, Wyo.

Pete and "Yankee Bill's" love of adventure will brook perils of any kind at any time for the pure love of sport—perils at which the tenderfoot would stand aghast. Both are known for the chances they take with their lives. The greater the danger the more ready they are to enter it. Peculiar cusses, these two rough miners. It was in jesting wager simply that they raced down the mountain side, Pete in the pan and "Yankee Bill' squatting on the shovel, both finishing with a record-breaker and what might have been a neck-breaker.

They climbed to the top of the peak, over two feet of snow, on the day of the adventure to wash out a decomposed quartsite which showed rusty iron ore, and which led them to believe would carry gold. In the afternoon it turned so cold that the surface of the mountain resembled glass. It was near sundown when the two men finished prospecting and started to retrace their way down the mountain. The slippery, iced snow impeded their progress, making the journey slow and dangerous at best.

Less than 100 feet down Pete jestingly proposed to "Yankee Bill" that they slide down on the pan and shovel.

"I'll beat you," said Pete, suiting the action to word and getting into the pan.

"You can't beat me," replied "Yankee Bill," at the same time squatting down on his shovel, unmindful of possible danger.

At first both slid along at a jerky fashion, for they were obliged to push themselves along at times. Suddenly, however, the descent become much more abrupt, and the two men launched into the zone and shot down with accelerating speed like comets through space. The sensation they felt can neither be described nor imagined. They tore down the mountain side like an avalanche, each holding on to his metal steed with a vise-like grip. A mile was covered in apparently an instant, when a ridge formation turned them off their course, and they flew still faster at an acute angle. The forty-foot chasm of Cow creek was inevitable, and before they had time to realize the danger they had leaped over its edge, cleared Cow creek, and as if human drills had bored the snowdrift twenty-five feet.

When dug out Pete and "Yankee Bill" did not exactly need the coroner, but there were not enough plasters and liniments in camp to soothe their bruises. They came up smiling, however, each stoutly maintaining victory. The shovel and pan will be exhumed next spring by nature.

# FOR THE LEISURE MOMENT.

### AN UNJUST EPITHET.

Hungry Higgins—Wot do you think? A woman called me a animated scarecrow this mornin'.

Weary Watkins—I've knowed you sence the early eighties, but I never seen no animation about you yet.—Ex.

Papa—You know, James, how much I disapprove of fighting. Still, it is gratifying to know that you have beaten a bigger boy than yourself. Why did you fight him?

James—'E said I looked like you, dad. —Ex.

### ALTOGETHER TOO HEALTHY.

Land Agent—Healthy? Why, man, there has not been a sick person out here for years!

Prospective Purchaser—Indeed! Well it would hardly suit a benedict. How could a fellow ever say he had been sitting up with a sick friend?—Philadelphia Record.

### WHAT HE SAID.

"My wealthy uncle spoke very nicely of you, Henrietta," said Mr. Meekton; "very nicely indeed. I'm sure you would have been flattered if you could have heard him."

"Indeed!"

"Yes. His tribute to your personal charms was the most graceful, and at the same time his recognition of your store of information, such as most people need a liftetime to acquire, was convincingly sincere."

"I should like to know precisely what he said."

"I can recall his exact language," Mr. Meekton went on, in gentle innocence. "He said you looked like 25 and talked like 60."—Washington Star.

### ONE COMING.

"Could you tell me the meaning of the word 'cataclysm?' " he asked of the street car passenger who was folding up his newspaper.

"Are you going to ride two or three blocks farther?" was queried in reply.

"Yes, sir."

"Then you'll see one. The conductor has carried that sharp-nosed woman two streets past where she wanted to get off already, and she'll wake up soon and start a catyclysm that'll probably jump the car right off the track."—Washington Post.

### LAYING.

"Now," said the professor in natural history, "take the case of a hen. Why does it lay an egg?"

"Because it can't lay a carpet," replied the bright boy of the class.—London Tit-Bits.

### BUT HE WAS NOT SATISFIED.

"Angelina," said the youth hotly, as he entered the drawing-room, "it remains for you to say whether our mutual friendship shall continue or be ended here at once."

"What is the matter?" asked the beautiful girl, opening her lovely orbs to their widest extent.

"Your father has just called me a stupid young idiot."

"And you want me to apalogize for him?"

"I do."

"Then I cheerfully do it. Father is altogether too frank, and I have often told him that even the truth shouldn't always be spoken."—Stray Stories.

### WHEN IT PAYS TO BE AUTOCRATIC.

The Russian court jester was trying to do his best to cheer up his imperial master.

"If you were the dean of the college of czars," he playfully remarked, "what would you then become?"

The czar looked at the jester coldly.

"Well, what?" he asked.

"A—a czar-dean, your majesty, of course."

The czar scowled.

"You have a very pretty wit—for the Siberian frontier," he said. "Away with him."—Ex.

# MEDICAL SOCIETY CALENDAR

**Giving Time and Place of Meeting and Name of Secretary.**

## NATIONAL SOCIETIES.

American Medical Association.
June 4-7, St. Paul, Minn.
George H. Simmons, Chicago.

American Academy of Medicine.
June 1-3, St. Paul, Minn.
Charles McIntyre, Easton, Pa.

American Medical Editors' Association.
June 3, St. Paul, Minn.
O. T. Ball, St. Louis.

American Academy of Railway Surgeons.
September, Chicago.
T. B. Lacey, Council Bluffs, Ia.

American Climatological Association.
May 30, Niagara Falls.
Guy Hinsdale, Phila.

American Dermatological Society.
May 30, Chicago.
F. H. Montgomery, Chicago.

American Gynecological Society.
May 28, Chicago.
J. R. Goffe, New York City.

American Laryngological Association.
May, New Haven, Conn.
James E. Newcombe, New York City.

American Medico-Psychological Association.
May, Milwaukee, Wis.
C. B. Burr, Flint, Mich.

American Neurological Association.
Boston.
G. M. Hammond, New York City.

American Ophthalmological Society.
July 17, New London.
S. B. St. John, Hartford, Conn.

American Orthopedic Association.
May 7-9, Niagara Falls.
John Ridlon, Chicago.

American Otological Society.
July 16, New London.
F. L. Jack, Boston.

American Pediatric Society.
May 27-29, Niagara Falls.
S. S. Adams, Washington, D. C.

American Physicians, Association of.
April 30, Washington.
H. Hun, Albany, N. Y.

American Proctological Association.
Oct. 22-26, Indianapolis.
C. O. Probst, Columbus, O.

American Public Health Association.
June 4-5, St. Paul, Minn.
W. M. Beach, Pittsburg.

American Surgical Association.
May 7-9, Baltimore.
Herbert L. Burrell, Boston.

Mississippi Valley Medical Association.
Sept. 10-12, Put-in-Bay.
H. E. Tuley, Louisville.

Missouri Valley Medical Association.
March 21, Omaha, Neb.
Chas. Wood Fassett, St. Joseph, Mo.

Obstetricians and Gynecologists, Am. Assn. of.
Sept. 17-19, Cleveland.
W. W. Potter, Buffalo.

Railway Surgeons, Internat. Association of.
June 10-12, Milwaukee.
L. J. Mitchell, Chicago.

Southern Surgical and Gynecological Association.
Nov. 12-14, Richmond, Va.
W. D. Haggard, Jr., Nashville.

Western Surgical and Gynecological Association.
Dec. 27-28, Chicago.
George H. Simmons, Chicago.

Tri-State Medical Society.
April 2-3, Keokuk, Iowa.
W. B. LaForce, Ottumwa, Ia.

## STATE MEDICAL SOCIETIES.

Alabama, Medical Ass'n of the State of.
April 16, Selma.
G. P. Waller, Montgomery.

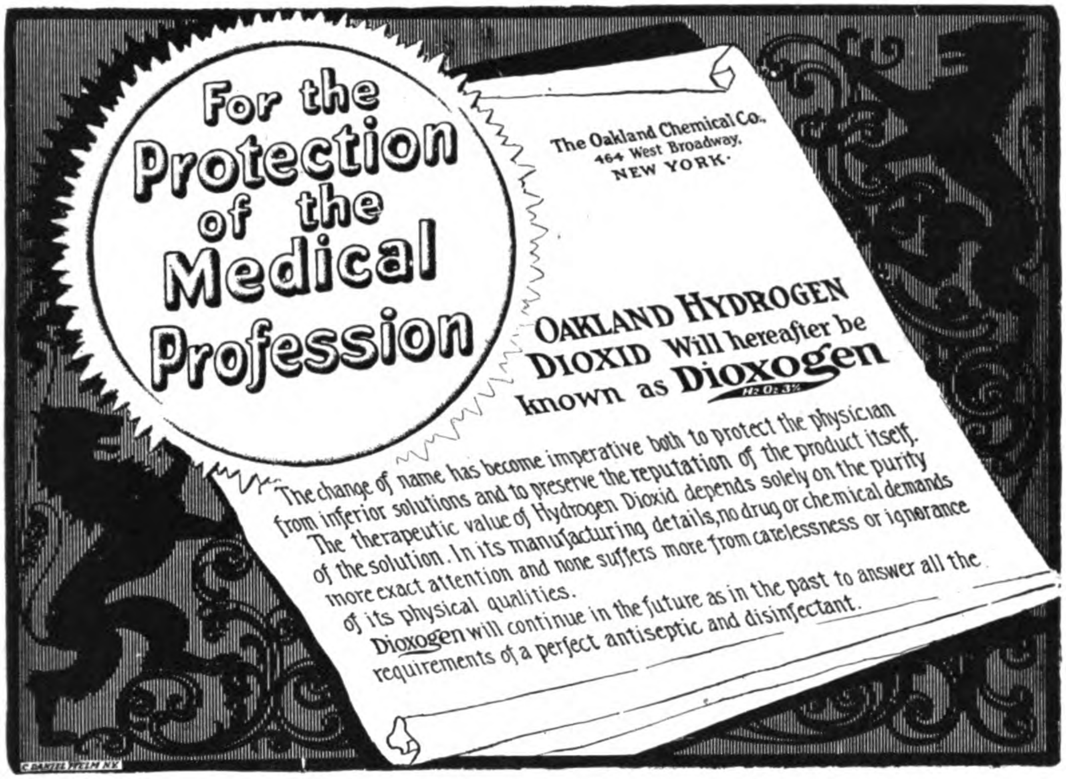
Arizona Medical Association.
February, Phoenix, Ariz.
Chas. H. Jones, Tempe, Ariz.

Arkansas Medical Society.
May 15-17, Hot Springs.
Frank Visonhaler, Little Rock, Ark.

California State Medical Society.
April 16-18, Sacramento.
Geo. H. Evans, Sàn Francisco.

Colorado State Medical Society.
June 18, Denver.
H. B. Whitney, Denver, Col.

Florida Medical Association.
April 10, Jacksonville.
J. D. Fernandez, Jacksonville.
Georgia Medical Association.
April 17, Augusta.
Louis H. Jones, Atlanta.
Idaho State Medical Association.
Oct. 3-4, Pocatillo.
Ed. E. Maxey, Caldwell, Idaho.
Illinois State Medical Society.
May 21-23, Peoria.
Edmund W. Weiss, Ottawa, Ill.
Indiana State Medical Society.
May 15-17, South Bend.
F. C. Heath, Indianapolis.
Iowa State Medical Society.
May 15, Davenport.
Jas. W. Cokenower, Des Moines, Ia.
Kansas Medical Society.
May 2-4 Pittsburg.
W. E. McVey, Topeka.
Kentucky State Medical Society.
May, Louisville.
Steele Bailey, Stanford, Ky.
Massachusetts Medical Society.
June 12, Boston.
F. W. Goss, Roxbury.
Michigan State Medical Society.
May 15-16, Battle Creek.
Andrew P. Biddle, Detroit.
Minnesota State Medical Society.
June 3, St. Paul.
Thos. McDavitt, St. Paul.
Mississippi State Medical Association.
April 17, Jackson.
J. R. Tackett, Meridian.
Missouri State Medical Association.
May 21-23, Jefferson City.
B. C. Hyde, Kansas City.
Montana, Medical Association of.
May 15-16, Great Falls.
B. C. Brooke, Helena.
Nebraska State Medical Society.
May 7-9, Lincoln.
A. D. Wilkinson, Lincoln.
New Hampshire Medical Society.
May 16-17, Concord.
G. P. Conn, Concord.
New Jersey Medical Society.
June 25-27, Allenhurst.
Wm. J. Chandler, South Orange.
New Mexico Medical Society.
May, Alamogordo.
J. F. McConnell, Las Cruces.
New York State Medical Association.
Oct. 21, New York City.
F. H. Wiggins, New York City.
North Carolina, Medical Society of the State of.
May, Durham.
G. W. Pressley, Charlotte.
North Dakota Medical Society.
May 22-23, Fargo.
Paul Sorkness, Fargo.
Ohio State Medical Society.
May 8-10, Cincinnati.
J. A. Thompson, Cincinnati.
Oregon State Medical Society.
June 5-7, Portland.
Wm. F. Amos, Portland.
Pennsylvania Medical Society.
Sept. 17, Philadelphia.
C. L. Stevens, Athens.
South Carolina Medical Association.
April 17, Florence.
A. J. Buist, Charleston.
Tennessee State Medical Society.
April 9-11, Nashville.
W. D. Haggard, Jr., Nashville.
Texas State Medical Society.
April 23, Galveston.
H. A. West, Galveston.
Virginia Medical Society.
Oct. 22, Lynchburg.
Landon B. Edwards, Richmond.
Washington State Medical Society.
May 8-9, Seattle.
A. H. Coe, Spokane.
Wisconsin State Medical Society.
June, Waukesha.
C. S. Sheldon, Madison.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THE ANTIKAMNIA CHEMICAL COMPANY – ST. LOUIS – U. S. A.

# THE MEDICAL TREATMENT DURING THE ADOLESCENT PERIOD.

By Edwin Rosenthal, M.D., Philadelphia,

Chairman of the Section on Diseases of Children of the American Medical Association; Pediatrist to the Franklin Free Dispensary, etc.

The adolescent period in the female may be said to be as critical in results as the menopause, and by reason of the methods of our education may be said to be one of the best known conditions universally recognized, and, as such, the common property, not only of the profession, but also of the laity. For this reason, it is not an uncommon fact to witness, not only the diagnosis of this condition being made by the "officious meddler," but also treatment. And it is very often, when such treatments have failed, that the patient is brought to the doctor. In such instances great care and discernment must be the weapons of the doctor, for it will be noted that recourse to all the old well-known remedies had been applied before further advice is sought. The commonest symptom that presents itself is the one that refers to the menstruation. And it is in all probability that this disordered condition is the most conspicuous factor that needs correction.

Two classes of cases are most numerous and may be divided into: 1st. That class that has never menstruated, and 2d. That class, that may have begun, shown a very slight discharge at infrequent intervals—once in six or nine months—but which has never grown to an extent at any time that may be termed a normal flow. The history of these cases is very generally of the same character, and may be briefly summarized: Digestive disorders, headaches, languor, flushing, sensations of fullness in the abdomen, disturbed, or unnatural sleep, or sleepy conditions during the day time; often some cutaneous affection —acne the most common. Whilst the symptoms may be present in some, frequently only part of them may be present in certain cases, as the skin affection. During the period that should be termed the "menstrual" period the symptoms are generally aggravated. If the "acne" be present, at this time, a fresh crop of pimples appear, and thus can be noted other symptoms.

In all cases of menstrual disorders in the young, the cause must be sought for, and if found corrected. This of certainty directs the treatment. In cases where the menstruation has never appeared, it should always be a certain rule to have the sufferer examined by the mother. In quite a number of instances, anatomical reasons have shown the reason. In four cases an "impervious hymen" was the cause. In two cases the "uterus" became the receptacle, and contained the results of numerous menstruations becoming enlarged even above the pubic bones; the cervix being impervious. In several instances there was an entire absence of the uterus and ovaries. This I noted in two cases, both married, and were examined for the reason. In one case, an otherwise well developed young woman, age 21, there was an absence of a vagina. Such cases as thus enumerated nothing can be done in the line of medication, but judicious surgical procedures may in indicated cases (impervious hymen or cervix) make a cure. Where, however, no necessary organs exist, nothing can be done, except such rules, as the regulation of the bowels, etc., at stated intervals, give much relief to the frequently present nervous symptoms. Where, however, no anatomical reasons exist, and the patient suffers from suppression of the menstruation, entire or in part, much can be done to aid a cure.

The question of age frequently enters as an answer to results. We have with us such a conglomeration of different nationalities, that the "age" question is a very vital one. Inasmuch, as frequently, the treatment of menstrual disorders may be wrongly applied, as an example: To attempt treatment of a gril of 13 or 14 years, when her mother only began menstruation at 12 years. Experience has taught me that girls born in warmer countries, or descending from such parentage, begin to menstruate much earlier than those of colder climes. For instance, girls from Italy or Cuba begin at 12 or 13 where those from Norway or Sweden begin at 15 or 16 years. Again in races I have seen some surprising dif-

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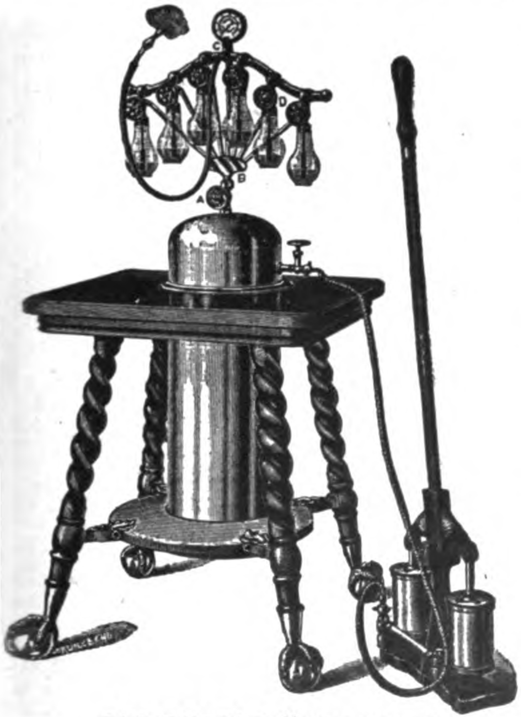

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Professor of Clinical Optics and Refraction.

ferences. The colored race have presented a girl of 10 years, and often I have seen girls of Russian-Jewish parentage begin at 10 or 11 years. So that the question of age should always enter into the treatment.

Whilst the most common symptom of disordered menstruation is "anæmia" and as the better known "chlorosis," or vulgarly "green-sickness," its absence need not preclude the use of the most common of all our remedies—iron. Anæmia alone may be the cause of suppressed menstruation, and while its presence may be looked upon as a certain cause, its treatment is as essential for the appearance of the menstruation as it should be for the general health of the patient. That anæmia in girls is most frequently found at this time leads to the common belief that anæmia, green-sickness, or whatever name this blood condition may receive, is the chief factor in menstrual disorders.

The treatment of such conditions are numerous, and should divide itself into the causative factor first, and then, after this has been relieved, to the specific symptom. In other words, it will be wrong to attempt by the use of specific remedies the appearance of the menstruation, if the physical condition of the patient is such that should not permit it.

Besides the condition of the blood as a cause of suppressed menstruation, other well-known conditions equally play a prominent part. Even if the patient should suffer from such diseases (tuberculosis as an example) the presence of a menstrual flow has such an encouraging influence upon the mind of the sufferer, that some attempt should be made, and as the method pursued by myself for many years can only be of benefit, such conditions are not contraindications for its use.

Iron is the chief remedy in menstrual disorders, and may be given at all times —before, after and during the flow. A certain time in the life of the patient should be set apart for active and specific treatment. The time chosen should be when the symptoms are most aggravated. The days, one, two or three, should be set apart, and our treatment should always culminate to this period. If we fail at the one, then we should begin again, and pursue our treatment until the second period, when the specific method should again be applied, and thus on. Even if failure should mar the first, second, or even the fifth period, the menstruation will appear, if the treatment be applied in a rational way.

Between the periods I always order the use of iron in three or four daily doses. I have used all forms and varities, from the tincture of the chloride, which is so often objected to, to the different kinds the Pharmacopoeia presents, in pill form, as the Blaud pill, simple or modified. My experience brings me back to Gude's Pepto-Mangan. Gude's Pepto-Mangan is now the most common in use, and there are so very many similar preparations in the apothecaries that care should be exercised in obtaining the genuine. I have a simple way of distinction. I always order Gude's Pepto-Mangan given with milk. If the mixture is clean, uncoagulated and palatable, then I know my patient has received what I ordered. For a further distinction, I invariably place on my prescription the name "Gude." My reasons are these; So very many so-called similar products are on the market that are inferior, and in a measure do not act in a manner you wish, clinically as well as physically. For my own defence, as I have been so frequently disappointed, I detect the fraud of substitution by mixing with liquids, especially milk; the "Gude" preparation always gives the palatable mixture.

I order of this preparation a teaspoonful in a wineglassful of milk every three or four hours, depending upon the patient's condition. If she be very anæmic, and with this very nervous, I place her upon the milk diet, and by the addition of Gude's Pepto-Mangan I reach my object, giving the food as well as the medicine. I increase the dose until a tablespoonful, three or four times daily. This treatment is kept up, and even continued through each period, until the purpose is obtained, perfect health, as regards not only the menstrual flow, but also the general physical condition.

Medical treatment is never sufficient in this class of cases, and failure is apt to result if no attention be given to other

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conditions; the very common class, the school girl who desires to reach the head of her class, or who studies for a prize or the like. Take the following case:

Case 1.—E. L., age 17 years, large in growth, over 5 feet 8 inches; reddish hair. A student of the Girls' Normal School, preparing for the teacher's certificate, which required two more years of study after the graduation. Complains of constipation and headache. Has acne on each cheek. Has occasional backache, and has an occasional attack of "nervousness," crying, etc. Her menstruation is scant, very irregular, and when it does appear, not more than one day, or probably one-half the next. Appetite erratic, though spoilt by the method of eating, as buns or cake or pie for lunch, whilst the breakfast, hurriedly eaten, was only a cup of coffee, or a roll. Her main food was the "supper-dinner," when she was "too tired or too long hungered" to eat. Once or twice I was called to quiet an hysterical attack. In this case the pimples were the bane of the young lady's life, and while she was not anæmic in any sense, I placed her upon the (Gude's) Pepto-Mangan, telling my patient this medicine was for the pimples, and that I left the further treatment in her hands. This with purgative pills of aloin with nux vomica was the whole treatment. Vanity came to my assistance, as the patient desired to be rid of the eruption. Persistent use of the iron was the only medicine used, and whilst the schooling was persisted in, she passed through the period, and eventually recovered.

The second case is one that is too frequently met with, the child of the poor, who is sent too early to the "mill" or "store," and who has never been taught the commonest rules of hygiene; the girl who spends her time in work, and whose only outing, a dancing or picnic, is equally as hard work.

Case 2.—Age 14 years. Attended school until 12 years, and then became a cash-girl in a department store. Rather large for her age. Flabby built, and of a distinct pallor. Complains of obstinate headache, relieved by the so-called bromos; indigestion, languor, sleepy during day-time, and at night a sleep that was heavy, unnatural, and disturbed by dreams; at intervals flushing with sensations of chilliness. Menstruation scanty, probably a half of one day, and very light in color. In this case work was a necessity, and even proper food could not be obtained. However, milk was the easiest and cheapest food, and from one to two quarts daily was the constant supply. To this food I added a teaspoonful of the Gude's Pepto-Mangan at each glassful, once every three hours, increasing until a tablespoonful dose was attained. This, with a purgative pill (the compound rhubard pill of the Pharmacopoeia), was the treatment persisted in for over eight months, with complete recovery. In this case the treatment was begun in the fall of the year, persisted in through the winter months, and during the following summer months a vacation of but two weeks was obtained, and the patient sent to the seashore by one of our charitable institutions. This patient was convinced of the utility of this method of treatment, as I found the following winter the same course was followed with a gratifying result, preventing any loss of time by reason of illness or otherwise.

I have also met with cases that the menstrual period came on correctly at a certain age, and continued so for a year or two, when, for some unknown reason, there was total suppression. There was no history of tubercular disease, nor could I obtain any certain cause. In one case marriage was undertaken as a hope for cure. This patient, aged 18 years came to me with the following history:

Case 3.—Mrs. B.; began menstruation at the age of 13 years; regular intervals until 15 years, when the flow became scanty and scantier until only a half day, and then entirely disappeared. She had not seen a flow for two years. Examination revealed the uterus two inches in length, somewhat anteflexed. The ovaries on each side could be felt, the size of an almond; the tubes could also be felt. This patient had been under the care of many physicians, and had had several operations, even a laparotomy, for the abdominal scar was visible. Nothing had been removed, she assured me, and the examination showed this also. Dilatation of the uterus had been performed as well as curettement, for what, I was not informed. She had also undergone electrical treatment. I treated this patient constantly for six months before a flow of blood was in evidence. My sole treatment was the internal use of the Pepto-Mangan (Gude's) in tablespoonful doses in milk, and the use of a stem pessary for a period of nine months. After this time an examination revealed the

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uterus two and one-half inches in length, larger in size. The tubes could be felt, and the ovaries on either side somewhat larger. Monthly flows have now been the rule for the last three months. This patient is still under treatment, and whilst the iron is still persisted in, the result of the treatment is uncertain. I am firmly persuaded that many cases can be benefitted by a correct application or our remedies and when applied for a certain purpose.

This last patient appeared hopeless, and at the start I had little hope myself that much could be looked for. It appeared as a case of early menopause. I have seen such cases, with atrophy of the organs. Here, however, this was stopped, and I have still hope of seeing further improvement.

I have seen such good results in the use of Gude's Pepto-Mangan in septic diseases that I have applied it fearlessly in other conditions. None give better promise than those conditions that are coupled with the menstrual flow, especially when seen at the adolescent period.

517 Pine street.
—Medical Fortnightly.

## PTOMAINES.

One of the leading specialists of the south, Dr. W. L. Bullard of Columbus, Ga., concludes a highly interesting and instructive article on Ptomaines in the following manner: "In all my twenty years' experience at special work, where the quick and safe relief of pain is the object of treatment, I have found nothing to equal five-grain antikamnia tablets. This remedy is not only a foe to ptomaines and their absorption, but is also a corrective in cases of poisoning by food-decomposition. As purely pain relievers, these tablets of course are recognized the world over as non-cardiac depressants, and free from any tendency to produce habit. I would also call the attention of the profession to those instances wherein it is strongly advisable to rid the system of the offending materies morbi as well as to correct their harmful influences whether it be in the poisons of food-decomposition or the absorption of ptomaines. In such cases I know of nothing better than Laxative Antikamnia Tablets. These tablets judiciously administered, rid the system in a perfectly natural manner of the offending material and lessen therefore, the quantity of medicine necessary to be taken by the patient and produce no disturbing influences on the delicate molecular interplay of the nervous structure."

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## SANMETTO AS A GENERAL TONIC.

Dr. J. W. Russell, of Clyde, Ohio, writing, says: "I have used Sanmetto extensively in genito-urinary irritations, and in atony of the generative system, with splendid results. I am pleased with its action as a general tonic in cases debiliated as a result of La Grippe."

## THE VALUE OF HYPOPHOSPHITES IN TREATING CONSUMPTION.

Barella (Le Scalpel, December, 1899) observes that there is not a single French or foreign medical journal that has not published cases conclusive as to the therapeutical value of the hypophosphites in every stage of consumption. Many of these cases are from reports of public hospitals. In the present state of science no physician of experience will deny that such treatment produces remarkable, sometimes almost immediate beneficial effects in many instances. This is true in spite of the fact that consumption is quite generally regarded as incurable, and is known to be the direct or indirect cause of the death of one-third of the adult population. The benefit of treatment with hypophosphites is always greater in proportion as the disease is less advanced.

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Bellevue, O.

## IMPORTANT NOTICE.

Dear Doctor:

The annual meeting of the Minnesota State Medical Society will take place Monday, June 3, 1901, at 9 a. m. at the State Capitol.

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Yours truly,
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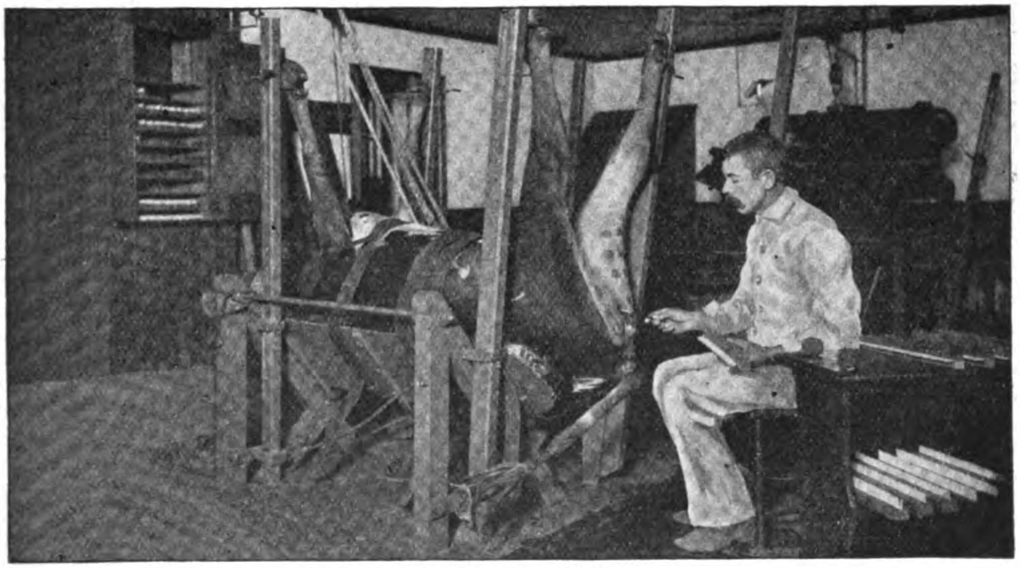

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# MEDICAL DIAL

A Monthly Record of Medicine and Surgery.

Vol. III. MINNEAPOLIS, JUNE, 1901. No. 6.

# ORIGINAL ARTICLES.

## REST IN HEALTH AND DISEASE.

By C. K. Bartlett, M. D., Minneapolis.

In the published lectures of John Hilton, F.R.S., F.R.C.S., on "Rest and Pain," there are many valuable suggestions for the care of the sick, and especially in surgical cases. On rest, both physiological and mechanical, as the chief natural therapeutic, he says, "Regarding this subject in its highest, closest, and best relation to mankind, and looking at it by the aid of my feeble penetration, I would, in all humility, remind you that when God ordained that man should live by 'the sweat of his face,' as a punishment for his disobedience, it pleased Him, in the plenitude of His unspeakable benevolence, to permit man's fatigue and temporary exhaustion to be followed by his greatest earthly solace,—the blessing of rest and repose, by calm and peaceful sleep: a blessing which should be the immediate reward of his labor. Nature devoting her best efforts, during this period of rest and sleep, to repair those powers which may have suffered exhaustion, to renovate the bodily strength, and to restore the mental vigor, mitigates man's punishment by a source of real and refreshing enjoyment, enabling him to resume his labor in all the delightful vigor of a renewed existence." We have, also, recently the views of Dr. Charles K. Mills, of Philadelphia, an eminent authority in nervous diseases, concerning "Rest—How to get it." His advice is sound and well adapted to all; but unfortunately for most of us, it can be strictly followed by a small proportion of the people in general, it being available only to those who are able to command their time, place of residence, and means of employment. The great majority as we know of professional men, business and laboring men and women are driven to strenuous exertion for self support and those who may be dependent upon them for aid. If the independent class is considered fortunate in being able to so order their manner of life to prolong existence, still the result does not always, or even generally appear to be in their favor; on the other hand a busy life, burdened by cares and often compelling the breach of rules of hygiene, will seem to sustain and prolong mental and physical vigor and usefulness.

In regard to sleep, Dr. Mills recommends not less than nine hours between sundown and 8 o'clock A. M., for those who expect to do good work. This time could not be much reduced for any considerable period without some damage to the mental and physical health, although for occasional deviation from the rule there might be no real or visible ill effects. In the matter of sleep, food and digestion play an important part. It is the nature of all animals to fill their stomachs and then go quietly to sleep. The infant man is no exception to this order, and food, proper for digestion, does not disturb the slumber of human beings until disease or unnatural habits have created an abnormal condition of their digestive organs. "Spare the evening meal and sweet shall be thy sleep," is poetry, and although written by Dr. Oliver Wendell Holmes is not compatible with his usual practical sagacity in physiology, and he must have had the condition of some suffering dyspeptic in mind when he gave utterance to the above thought. The suggestion to break the work of the day by a short rest, and sleep if possible, preferably at noon, is a good one, and if systematically carried out by all busy men, as it could be if fully understood and appreciated, would not only add much to the ability for work, but tend to prolong life. Many feeble men physically have been able to accomplish great tasks by taking short rests during the day; one such I knew, who would become thoroughly exhausted, but on assuming the horizontal position for five minutes occasionally, would go on and do a full day's work, and he lived to be an old man. Without these little rests he would have died, probably, at an early age.

Vacations are salutary, often necessary, especially for those who are closely confined to one pursuit and that of a monotonous character. However pleasant and profitable these breaks in one's work may be, they must not be taken in a lump as a satisfaction for prolonged periods of labor. For instance—a hard working clergyman, feeling the need of a change and a rest, told his physician that he would take a six week's vacation. The doctor said, "That is good; but you might as well expect to do all your eating in six weeks for the year as all your recreation in that time; what you need is some rest and diversion daily." But it is a question of "ways and means" generally with the multitude, as to how much time they can spare from their daily vocations. Lawyers can usually so arrange their work, which mostly comes with the sittings of the courts, as to have some time at least for recreation without sacrificing much in pecuniary matters; not so with physicians; when they leave their daily rounds of visits to their patients, their income ceases until their return, and then they may find some patrons have transferred their allegiance to another doctor and there is a permanent loss where only a temporary one might have been expected. Thus the vast majority of professional and laboring men must depend largely upon the daily and temporary rests suggested before for their welfare.

Dr. Mills thinks the "Rest Cure" as outlined by Dr. Weir Mitchell, of Philadelphia, has been misunderstood to some extent, and mistakes have been made in the manner in which the treatment has been carried out. "Some thinking it only necessary to put a patient to bed in charge of a well-paid nurse and to give a few directions as to feeding and the use of medicines." The facts are that cases for which this treatment is most applicable must be selected with great care, and only after a thorough knowledge of the mental and physical condition of the individuals; and then other means of treatment are necessary, and must be employed systematically and on scientific principles, such as massage, Swedish movements, baths, careful nourishment to improve the digestion, and restore the nervous system to its normal tone. This treatment, as Dr. Mills has said, "Is the most valuable in neurasthenia and hysteria; but it may be used with advantage in other affections, as chorea, exophthalmic goiter, neuritis and myelitis, in some cases of melancholia and mania, and even in locomoter ataxia for the relief of pain and to improve the general nutrition." Of the above mentioned diseases for this manner of treatment, such cases of melancholia as are inclined to refuse food, and maintain the upright position both night and day, are peculiarly suitable; in fact no other course will promise so quick and reliable results as to recovery. If necessary, feeding by force in sufficient quantities of easily digested nourishment with tonics and stimulants added, and the enforced horizontal position must be thoroughly carried out. By these means many useful lives have been prolonged.

## TREATMENT OF ACUTE DIARRHEAL AFFECTIONS.

By A. J. Black, M. D., Bowdle, S. D.

In the treatment of acute diarrhea our main reliance was formerly placed in the use of tannic acid, opium, bismuth subnitrate, chalk, tr. catechu, tr. kino, acetate of lead, etc., the principal object being the checking of the discharge as quickly as possible.

When bacteriology became an established science the treatment of most diseases was revolutionized, the antiseptic method taking the place of the former treatment. The management of diarrheal affections underwent one of the most radical changes. Basing our treatment on the bacterial theory, our first object is, to clear the intestinal tract, which may be successfully accomplished by purgative doses of castor oil or calomel, or still better, by a purgative composed of four drachms of sodium and magnesium sulphate, which, according to the experiments of Gilbert and S. A. Dominici, referred to by Andre Martin, surgeon-major in the French army, in his paper on the "Treatment of Acute Dysentery" (Bul. gen. de Therap., 1899), proved most efficacious. They demonstrated that such a purgative reduced the proportion of bacteria in the alimentary tract from twelve billions to one billion in a period of twenty-four hours. In the same paper Martin calls attention to the experiments of Grossets and Robin, who demonstrated that a milk diet will diminish the bacteria in the intestinal canal from twelve billions to 164 millions, but it required a longer time. On the basis of these facts the diet in all acute diarrheal affections ought to consist solely of milk.

Having determined that purgation and milk diet form a most essential part in the rational treatment of these troubles, we have now arrived at the point where it becomes necessary to choose an antiseptic capable of destroying the pathogenic germs infesting the intestinal tract, as well as an astringent which will control the profuse and exhausting discharges, and restore the mucous membrane to the normal condition. Of intestinal antiseptics we have a large number, the most of which, however, if prescribed in the dose necessary to prodduce an efficient germicidal action would give rise to irritation or even poisonous effects. One of the more recent internal antiseptics is formaldehyde, employed in the chemical combination known as hexamethylen - tetramine. By combining the latter with tannin a product known as tannopine results, which not only exerts the antiseptic action of formaldehyde but also the astringent effect of tannic acid. Tannopine is insoluble in acid fluids, but splits up slowly in fluids having an alkaline reaction. For this reason it is not decomposed in the stomach, but breaks up gradually in the intestinal canal, thus doing away with the great disadvantages that belong to tannin, and the various drugs containing it.

Tannic acid, although at one time the favorite intestinal astringent, has been more and more discarded, owing to the fact that it is apt to exert an irritating influence upon the gastric mucous membrane, thus increasing the disturbance of the stomach usually existing in diarrheal affections. Moreover, it forms insoluble albuminates in the upper part of the intestine, so that the greater part of the dose administered is rendered inert. For the reasons above given tannopine acts in an entirely different manner; upon the stomach it exerts no effect whatever, while in the intestine it is decomposed with the liberation of tannic acid, and this takes place more particularly over the inflamed mucous membrane, where the secretion is most profuse and alkaline, as demonstrated by Professor Escherich.

In doses of 10 to 15 grains, three to four times a day (children in proportion), tannopine has proved very valuable in my hands, so much the more as it is well tolerated and does not cause nausea and vomiting. To illustrate its action a few cases have been copied from my records.

Case I. Laborer, 27 years of age. Diagnosis: Cholera morbus. I was called at midnight and found the patient suffering from violent chill, vomiting and purging, intense thirst, paroxysmal attacks of abdominal colic; pulse small and feeble; no fever. I gave a hypodermic injection of morphia sulphate, ¼ grain, and tropin, 1-120 grain, and administered a purgative composed of sodium and magnesium sulphate, of each four drachms, dissolved in a glassful of hot water, and prescribed T. in 10 gr. doses every 3 hours until five powders were taken. Improvement took place at once. The next day by noon the evacuations were considerably reduced and all symptoms of colic and vomiting had ceased. I continued tannopine in five grain doses every three hours, in connection with supportive measures to combat the temporarily enfeebled constitution. The fourth day all symptoms had disappeared; the stools were normal, and the patient was dismissed cured.

Case II. Clerk, 22 years of age. Diagnosis: Acute enteritis. The patient, previously in perfect health, called at my office suffering from langour and chilliness, paroxysmal pain over the umbilicus, and with a temperature of 101 degrees. The bowels were loose and of a yellowish color; nausea and intense thirst were present. The patient was ordered to bed, and placed on a restricted diet consisting of chicken broth and milk and lime water, after first being given a hypodermic injection of morphia and atropia and the purgative used in case No. I. Tannopine was then prescribed in 10 grain doses every three hours. Twenty-four hours later there was a subsidence of the principal symptoms, and in 48 hours the patient felt much improved in every respect. The evacuations were less frequent in number. The tannopine was continued in 5 grain doses until the fifth, when complete recovery took place.

Case III. Baby, 12 months old. Diagnosis: Acute enteritis. Watery stools, ten to twelve every twenty-four hours. I prescribed tannopine in three grain doses every two hours, preceded by a dose of castor oil, which caused a complete checking of the diarrheal discharges and restored the normal stool in two days.

Case IV. Child, poorly nourished, two years of age. Diagnosis: Acute enteritis. Diarrhea with very offensive greenish-yellow stools, 14 to 16 evacuations daily. The diet was regulated, and after a purgative dose of castor oil, tannopine in five grain powders was given every four hours. The stools became less frequent within twenty-four hours, and almost entirely devoid of offensive odor. The powders were continued for three days after, when the case was dismissed, the child being entirely well by this time.

Case V. Child, three years and six months old. Diagnosis: Acute enteritis. When I was first consulted the patient was having yellowish-greenish stools every 15 to 20 minutes, and suffering from colicky pain in the abdomen; marked exhaustion was present. I administered repeated doses of camphorated tincture of opium to relieve the pain and after having administered a purgative dose of calomel, 2 grains, sodium bicarbonate, 5 grains, pulv. ipecac, 1-5 grain, combined in a powder, tannopine was given in five grain doses every three hours. The next day the stools were reduced to one every two hours. The second day the evacuations had lost their offensive odor and were only four in number, and on the third day were entirely normal, and the child was fully restored to health.

Case VI. Woman, 24 years of age. Diagnosis: Acute enteritis. The patient was attacked at night, after having partaken of a frugal supper, with abdominal colic and diarrhea, slight feverishness and vomiting. She had eight passages during the night, the stools being very offensive. To relieve the pain and colic a hypodermic injection of morphia and atropia was administered, and tannopine was given in 15 grain doses every four hours, preceded by a purgative. Improvement took place from the very first day of the administration of tannopine. She had six passages the next day which were entirely devoid of any abnormal odor; feverishness and colic were only present to a slight degree. The third day all symptoms subsided and the day following the patient was dismissed.

Case VII. Child, two years of age. Diagnosis: Acute enteritis. The stools were yellowish in color; umbilical tenderness with paroxysmal pain was present. Three five grain doses of tannopine effected a complete cure.

Case VIII. Child, 16 months old. Diagnosis: Acute enteritis. Stools at the rate of two to three every hour, and of the typical rice-water color. Tannopine in three grain doses, every two hours, reduced the evacuations to eight the next day, and on the following day the stools were normal in color, as well as in number, and the child was restored to perfect health.

## TREATMENT BY CONCENTRATED LIGHT RAYS.

A Minnesota physician, whose name is not mentioned in the official report, recently wrote a letter to Professor Swenson of Albert Lea, consul at Copenhagen, asking him as to the treatment of certain diseases by concentrated light rays. Professor Swenson has made a lengthy reply, which is made the basis of one of the consular reports. As published by the state department, the letter is in part as follows:

Dr. Finsen's Light Institute was founded in 1896, for the purpose, as expressed in the articles of incorporation, of making and encouraging investigations regarding the effects of light on the living organisms, especially with the view of utilizing light rays in the field of practical medicine.

The corporation numbers among its members men of eminence and recognized authority in the medical profession, such as the professors of the University of Copenhagen in pathological anatomy, anatomy, and common pathology; and the superintendents of the leading hospitals in Copenhagen.

The institute has gained the confidence and aroused the interest of the public to such an extent that it now receives state as well as municipal aid in the way of appropriations. Its success and growth have been phenomenal. Altogether some 350 cases of lupus vulgaris have been treated, in all of which satisfactory results have been obtained. A large number of cases have been treated experimentally for other diseases of the skin, among them erysipelas and alopecia areata. Scarlet fever is to be experimented with. In an interview which I had with Dr. Finsen a few days ago, he told me that the light treatment as now perfected is so effective that there is reason to believe that every case of lupus vulgaris can be cured by means of it. Dr. Finsen's successful treatment of smallpox by means of red light is also very interesting and ought to be widely known.

Both sunlight and electric light can be used for medical purposes. Owing to its latitude, Denmark is not favorably situated for using sunlight; hence the institute makes nearly exclusive use of electric light. The arc lights used are each of 4,000 candle power (ordinary street arc lights are from 2,000 to 4,000 candle power). Earlier experiments with this method of treatment have failed because the light used has not been powerful enough.

Dr. Finsen is also experimenting with photo-chemical baths to ascertain how far light is instrumental in supplying the skin with blood. He says that the red color of the exposed parts of the skin is caused principally by light. Heat seems to hinder and cold to further it.

# BIOGRAPHICAL SKETCHES.

## The Doctors Warren of Boston.

In a biographical sketch of the Warren name among medical men, it seems proper to speak of it as a family, which for more than one hundred years has held so conspicuous a position in the front rank of physicians and surgeons, both at home and abroad. If there is a similar instance of an unbroken succession of distinguished men in a family, it is not on record so far as I have been informed.

Dr. John Warren, the founder of the family, was born in Roxbury (now a part of Boston), Massachusetts, July 27th, 1753, and died April 4th, 1815. He was a brother of Dr. Joseph Warren, the statesman and patriot, who fell at the battle of Bunker Hill, June 17th, 1775. He graduated at Harvard college in 1771 and began the practice of medicine and surgery in Salem, Mass., in 1773. He was with the Salem regiment in the battle of Lexington, and remained at Cambridge in charge of the wounded. In June following he was appointed senior surgeon to the hospital. He accompanied the army during two years, and was then appointed to the charge of the military hospitals in Boston. He joined the expedition of Gen. Green to Rhode Island in 1778, and another against the insurgent Shays (called Shays rebellion).

in 1786. In 1780 he gave a course of dissections to his colleagues; this led to the establishment of a medical school under his auspices attached to Harvard college, in which he was appointed professor of anatomy. He introduced many operations in surgery previously unknown in this country. In 1783 he delivered the first of a series of fourth of July orations in Boston. He published several addresses and essays, and contributed many valuable papers to the "New England Journal of Medicine and Surgery," the "Memoirs" of the American academy, and the "Communications" of the Massachusetts Medical Society.

Dr. John Collins Warren, son of the preceding, was born in Boston, Aug. 1st. 1778, and died there May 4th, 1856. He graduated at Harvard college in 1797, studied medicine with his father and in London, Edinburgh, and Paris, and returned to Boston in 1802. In 1806 he was chosen adjunct professor of anatomy and surgery in Harvard college, and in 1815 succeeded to his father's professorship and also to his practice. He was one of the founders of the Mass. General Hospital, of which he was principal surgeon till his death. In 1828 he became associate editor of the "Boston Medical and Surgical Journal." In Oct., 1846, he was the first surgeon who employed ether in a public surgical operation. He waited at the hospital amphitheater for some time somewhat impatiently for Dr. Morton, who by appointment had promised to administer his secret compound and had been delayed by some accident; but on his appearance and having given the "compound," said to Dr. Warren, "your patient is ready." The operation completed, without any sign of pain by the patient, Dr. Warren turned to the crowd, assembled as sceptics as to the success of the experiment, and said in his terse and emphatic manner, "Gentlement, this is no humbug," and the world was soon informed of the great discovery. He was founder of the McLean Asylum for the insane (a branch of the Mass. General Hospital), and was president of the Mass. Medicai Society from 1832 to 1836. Besides numerous scientific papers, he published "Diseases of the Heart" (1809); a "Comparative view of the Surgical System in Man and Animals" (1822); "Remarks on Dislocations of the Hip Joint" (1826); "Surgical Observations on Tumors" (1839); "Etherization" (1848); and "Mastodon Giganteus" (1855). In some reminiscences the Doctor relates his ambition to perform an amputation when he was a young man. One evening there was a call while his father was out, and on promptly responding he found a lusty negro with a badly broken leg; he thought his opportunity had come, and he made ready to remove the limb; but just then his father appeared on the scene and called a halt. The result was that the patient saved his leg and the young doctor lost that opportunity to amputate; but he had many others during his long and busy life. After the discovery of ether, vividly recalling the many painful scenes in which he had been an actor, he said, "he felt like grasping the knife anew."

Dr. J. Mason Warren, son of the preceding, was born in Boston in 1811, and died there, Aug. 19th, 1867. He graduated in the medical department of Harvard University in 1832, studied in London and Paris, and was for twenty years attending surgeon to the Mass. General Hospital. He was always associated with his father in practice and attended to most of the operative work of the office for several years before his father's death. He published "Surgical Observations, with cases and operations" (Boston, 1867). Those who witnessed surgery by these men can never forget the graceful dexterity with which they manipulated instruments, and the touch of J. Mason, especially, was delicate and gentle as that of a woman. The doctor had one very narrow escape from a violent death. He was on the train with many other distinguished physicians of New England, who were returning from a medical convention in New York, when it plunged into an open draw bridge, at Norwalk, Conn. Without a moment's warning he found himself on the front seat of one half of a car which had remained on the track while the other half had broken off and gone down into the river. It is reported that in a very short time the doctor was at work among the injured, replacing dislocated limbs, and otherwise caring for the wounded. Many were instantly killed or drowned. One car was entirely submerged in the river, and from that only one person, Dr. Bemis, of Charlestown, Mass., and personally known by the writer, was saved, and he it might be said by an accident. The iron truss of the following car crushed through the roof of that below, and the doctor seized the rod; the car above then rolling over pulled him through the roof with only slight bruises and scratches.

Dr. John Collins Warren, of the fourth generation, now professor of surgery to the Massachusetts General Hospital, and as an author of surgical works, is sustaining the high character and reputation of his illustrious ancestors.—B.

## RULES OF DEPORTMENT.

A sage of refined deportment has offerred the following excellent rules, in the shape of a few "don'ts," which may be appropriately utilized by most any physician:

Don't make anyone feel self-conscious in your presence. It indicates that you are excessively self-conscious yourself. Be unconscious of yourself, and that will make people unconscious of themselves when with you.

Don't expect too much from other people, but encourage other people to expect a great deal from you—and be sure that you fulfill the expectations.

Don't make too much of your bodily ailments. It makes you tiresome to yourself.

Don't be cynical. It indicates that you are very young or that you have never become mature.

Don't vent on one man the irritation caused by the mistake of another. Don't vent on others the irritation caused by your own mistakes.

Don't vent your irritation on anybody.

Don't apply these "don'ts" to other people. Apply them to yourself, or else don't apply them at all.

## THE PASSING OF ANNA'S CAT.

It will be many a day before the people of Anna, Ill., will be troubled with the music of the midnight cat. The local physicians there claimed to have made the discovery that the feline brotherhood was the instigator in the spread of small-pox, and, as a consequence, a vigilance committee was organized of leading citizens which went a gunning down the back alleys. Pussy will not soon purr again in that Sucker town.

For the little mewer is dead,
  And out under the sod so deep,
Where they've made her snug little bed,
  And she will do nothing but sleep.

Colonel Edward S. Bacon, a prominent attorney and the oldest member of the Berrien County (Mich.) Bar Association, is dead, aged 71 years. The attending physician says that death was due indirectly to diabetes. At the suggestion of a friend, however, Mr. Bacon commenced taking salt a short time ago, and, as he felt improved, he increased the dose until he finally took three teaspoonfuls daily. This, the doctor says, separated the iron in the blood from the white corpuscles, with the result that the blood turned white.

The following simple method (Iowa Health Bulletin) will enable any one to detect readily a dangerous proportion of carbon dioxide in the air of a room: Bring into the room a half-pint bottle entirely full of water; pour out this water in the room, when the empty bottle will be immediately filled with the air of the room; now put into the bottle one tablespoonful of pure limewater, cork, and shake it. It it turns milky white in a few minutes the ventilation is imperfect.

Dr. W. C. Browning, of Pittsburg, Pa., the physician who attended the late Senator C. L. Magee, and whose bill for services amounted to $190,000, says he will sue for $784,000 unless the executors pay the amount first named. The larger sum includes medical fees and investments made for Browning by Magee.

A small piece of rosin, finely powdered and kept on the dressing table, will prove a great benefactor to those who are troubled with their eye-glasses falling off. Dip the tip of the finger into the rosin and put what adheres to the finger on the sides of the nose. It will then be impossible to shake the glasses off.

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JUNE, 1901.

## SMALL-POX AND CHRISTIAN SCIENCE.

A story comes from Aberdeen which is rather startling. Not many days ago a young man from South Dakota, while pursuing his studies in Minneapolis, was taken ill, and his mother being a strong believer in Christian Science, a member of that cult was called in. In due time a rash appeared following a period of malaise fever, backache, etc. The boy was urged to the belief that he ailed nothing, was instructed to fight off the so-called "claim;" was placed in a sleeper and sent to his home. At Aberdeen the health authorities discovered that he was suffering from a typical case of small-pox. He was taken from the car to the detention hospital. The bedding used by him in the sleeper was destroyed; the car was sealed and sent back for fumigation. Many persons were exposed to infection and these are being carefully kept under observation.

While we admire the watchfulness and prompt action of the Aberdeen authorities, we blush for our own city, which harbors so many cranks and fakers as to make possible such an outrage as has been related.

One of the greatest blessing to coming generations of civilized man would be gained by the abandonment of corsets worn by most women. The wearing of these instruments of torture destroys the vitality of women; produces deformity; is a hindrance to maternity; mars the symmetry of the body; deprives the figure of its natural comeliness—all of which have their effect upon children born to the wearers. Throw away the corset and half the diseases to which flesh is heir would disappear.

So vigorous has been the crusade waged by the board of health of New York city upon those who expectorate in street cars and ferry boats that the nuisance is much abated. John B. Sexton, president of the board of health, said that thirty-two persons were arrested in one day for spitting in public conveyances. Seven were discharged, sixteen were held for trial, and nine were fined from $2 to $3. "As a result," said Mr. Sexton, "I find that the street cars and ferry boats are much cleaner.

If the papers continue to call attention to this effort of the board of health, I think it will be only a short time before conditions will be greatly improved." The Minneapolis board should commence to enforce the ordinance which was passed, and not let it remain a dead letter.

In regard to an item which appeared in the last issue of the Medical Dial, stating that the school board of Somerville, Mass., had ordered that all books on physiology shall be put into the hands of the teachers only, in the primary and grammar schools, Professor G. A. Southworth, Superintendent of Schools of that city, writes: "This is not true. The proposition was made and rejected."

Governor Van Sant has appointed the following board of optometry; Alexander Sweningsen, Moorhead; J. W. Grainger, Rochester; F. A. Upham, St. Paul; H. M. Hitchcock, Redwood Falls, and C. A. Snell, Minneapolis. This board was created by the last legislature to examine and license all persons engaged in fitting spectacles to weak and defective eyes.

The Chicago Medical Society, at a recent meeting, were entertained with a symposium on the bad effects of the quick lunch a la Chicago. The opinion prevailed that a large percentage of stomach troubles with city folks resulted from the quick lunch.

Even the medical board of Montana seems to have trouble, according to the following item clipped from the Marysville Mountaineer: "The state medical board has been again turned down by a Helena 'farmer' jury, who granted Dr. Allen of Butte a permit to practice medicine. Is the board a trust organized to freeze out new-comers from the practice of medicine in Montana? Catch questions are used. What is $K_9Mn_3N_6H_6C_2Br_{20}Fe_7come_{11}$? This question is supplemental to the ones asked by the Helena Independent, and for a correct answer there is a reward of 30 cents."

At the annual session of the Montana State Medical Association, at Helena, recently, the following officers were elected: President, T. J. Murray, Butte; first vice president, T. J. McKenzie, Anaconda; second vice president, Louis Bernheim, Butte; secretary, B. C. Brooke, Helena; corresponding secretary and historian, J. F. Sjeilban, Anaconda; treasurer, George H. Barbour, Helena. The next meeting will be held in Butte. The association passed resolutions for the enforcement of the new meat and milk inspection law in cities of 5,000 or over and indorsed the action of the state's medical examiners.

There is no reason in the world why sick persons should not be cheerful and have all the fun possible under the circumstances, but a lot of small-pox patients at West Superior, Wisconsin, seem to have reached the climax when they organized a base ball club. The team played several games with itself, but the spectators and rooters keep at a safe distance. The club also held a field day, with good results.

George C. McClusky, of Clinton, Iowa, was recently relieved of a lizard 5½ inches in length that had inhabited his stomach for eight years. For three years McClusky has been an invalid and had suffered greatly. When taken sick he weighed about 170 pounds and a few weeks ago when he was taken to St. Louis to be operated upon he weighed but 105 pounds and could not walk without help. His complaint was diagnosed as a stomach tumor, and he went to St. Louis to have it removed. He was kept without food for three days, during which time the lizard became so restless that its movements could be observed on the outside of the body. On the third a piece of poisoned bread was forced down McClusky's stomach. This the lizerd ate and soon died. A strong cathartic relieved the patient and the lizard was cast out, but for three or four days McClusky's condition was considered hopeless. The lizard was carefully examined by naturalists, and they say it is at least eight years old. Mr. McClusky says that about eight years ago, when fishing, he laid down on the bank of the river and drank from among a pile of stones. He swallowed something, but did not know what it was, but supposed it was some vegetable substance.

The tuberculosis congress at its recent session in New York City elected the following officers: Honorary president, Dr. A. N. Bell, Brooklyn; president, Dr. Henry D. Holton, state board of health of Vermont; secretary and treasurer, Clark Bell, New York City.

In the federal courts at Kansas City, Stephen A. Weltmore and Joseph A. Kelley, president and secretary respectively of an institute of magnetic healing at Nevada, Mo., pleaded guilty to indictments charging them with using the mails to defraud. Sentence was reserved.

The only physician in Lake City, Col., is Dr. D. R. Lacey. He is serving a term in the jail for manslaughter, but has the liberty of the town, and is maintained at public cost. He has a considerable practice, and the county attempted to recover part of his professional earnings to offset the cost of his maintenance. Failing in this the authorities petitioned the state board of pardons for his release. The doctor refused to sign this petition.

It is announced that within the next twelve months the finest and most modern hospital in the northwest will be located in St. Paul. Arrangements are being made for the erection of a million-dollar building, which, it is proposed shall be second to none in the country. The project was considered at a meeting of the prominent physicians, and arrangements were all but completed for the erection of the building. The plan is to secure such an institution that it will have no rival in the northwest. The institution will be nonsectarian.

The health officers of Minneapolis now require vaccination among the pupils of the parochial schools as well as the public schools.

George S. Dobbins, who has been wholly blind for more than eighteen years, recently graduated from the Chicago Homeopathic Medical College. There are eight or ten blind physicians now practicing medicine in the United States.

It is claimed that a woman of New York city contracted blood poisoning through the fact that a handkerchief which she placed on the hand strap of a crowded street car to protect her white kid glove was used to wipe her face at the theater later in the evening. A couple of days later the initial indication of blood poisoning appeared.

It is claimed that corn has found a new use, other than the manufacture of concentrated "apple-jack." According to the dispatches several persons in Connecticut have been cured of cancer by eating boiled yellow corn and drinking the water in which it is boiled. The patient must take no other food during treatment, and thirty days are required to complete the eradication of the "parasite" of Professor H. R. Gaylord, of the University of Buffalo.

In Pennsylvania the colored people believe that chickenpox can be cured by tying the patient to a post in the barn yard and letting the roosters and hens walk over him. "In a case of smallpox, sometimes known as cowpox," a writer in the Minneapolis Journal wonders "how would it do to drive a herd of steers over the prostrate patient?"

Dr. C. W. Miller of Virginia, Minn., will build a hospital costing $5,000. He is also building a residence.

The Royal Jubilee Hospital, at Rat Portage, Ontario, according to the fourth annual report of Richard Thompson, secretary of the board, which appeared in the Miner May 26, is in a most flourishing condition. There were 150 patients admitted during the past year; 86 were typhoid, and among these there were but two deaths. There was a total of 11 deaths in the institution during the year.

The initiatory discussion looking toward steps to be taken to ward off the bubonic plague in this country has begun in Chicago. A serious report appeared a few days ago in the daily press, with opinions of leading specialists, as to what should be done. The consensus of opinion seems to be that immediate steps should be taken to clean up all the large cities, and to exterminate the rats.

A party of professors and students from Harvard, under the charge of J. R. Johnson, will sail on the 15th of this month for Venezuela, to see if they can discover the missing link in the vegetable world in the island of Margarita, which it seems has never been explored by scientific men. They may find this missing link, but it is very probable that students of evolution will never be able to discover a place where life will spontaneously originate, either in plant life or animal life.

The Salvation Army officials have proposed to the United States Steel Corporation to care for the disabled employes of the trust on lands within the army colonies in the west, and to provide comfortable small homes with ten acres of land, for $500 for each family. This money is to be loaned to the Salvation Army, which guarantees its repayment with 5 per cent interest at the expiration of ten years, with the understanding that it shall be used for the location of other families upon similar colonies indefinitely. General Frederick L. Booth-Tucker is conducting the negotiations on behalf of the Army with the officials of the steel trust.

Governor Van Sant has appointed the following commission to investigate and select a site for a state sanatorium for consumptives: Dr. H. L. Taylor, St. Paul; Dr. James L. Camp, Brainerd, and Dr. George S. Wattam, Warren.

The South Dakota State Pharmaceutical association will meet in Redfield August 13, 14 and 15.

A report from Buenos Ayres, Argentina, says that Dr. Carlos L. Villar, an Argentine army surgeon, has just published a report on the treatment of fifty cases of tuberculosis with serum at the military hospital. "Tuberculosis in its early stage," says Dr. Villars, "is cured within forty days. Patients whose cases were more advanced but without complications, were all cured within ninety days. Of those patients far advanced, all were cured except those who could offer very little resistance to the disease."

Drs. J. R. Eby and J. F. Avery, of Virginia, Minn., will remove, having sold their interests there, and will relocate elsewhere.

The South Dakota State Board of Pharmacy seems to be doing good work in that state. During the past year six persons were convicted of conducting drug stores without having registered pharmacists in charge.

There are certain sections of the Golden State which are jocosely designated as the "one-lung" countries. There may be quite a number of "one-lung" people there, but the appellation is too sarcastic for ordinary use, but however this may be, an operation was performed at Santa Anna, Cal., a few days ago, in which one Perry Taylor had a complete lung removed. The patient was only 26 years old, but was stricken with tuberculosis. The surgeon found 240 cysts in the lung removed. There is every prospect that Taylor will recover.

A man in New York city, by the name of Joseph Lennon, 437 East Tenth street, while attending a ball in August last, fell from a platform a distance of twenty feet. His back was broken. the eighth, ninth and tenth vertebrae were smashed and lodged against the spinal cord, paralyzing him from the small of the back downward. Dr. Herbert K. Noble, of Jamaica, was four hours removing the broken portion of the spine. One touch to the cord would have meant death to the patient. From that time Lennon began to improve. In January the circulation of the blood was restored to his legs. In February Lennon commenced to move his toes and by the latter part of that month he could move his feet backward and forward a few inches. His recovery has been rapid since then. The patient will be discharged this month.

## THE MEDICAL DEFENCE ASSOCIATION OF MINNESOTA.

To the Editors of the Medical Dial:—

Dear Doctors: I wish to call the attention of your readers to the fact that "The Medical Defence Association of Minnesota" is in operation, with every prospect for a bright and useful future. When our association began its work, several other corporations had entered the field, and it is to call attention to some of the advantages of our local association that I address you.

First, the cost is less, being only $5.00 a year.

Second, it is managed by the profession for the profession.

The fact that a large number of practitioners of the State are united to defeat the blackmailers cannot but have the effect of lessening the number of suits. Some of these companies not only defray the expense of the suits, but pay the verdict as well. This seems to me to be a very objectionable feature. To stand back of us with money to pay verdicts would, I fear, be offering a premium to the lawyer to sue us.

What we want to do is to bring every proper influence to bear in avoiding suits, and to do nothing to invite them. "Thousands for defence, but not a cent for tribute," should be our motto.

Truly yours,
David B. Pritchard, M.D.
Sec'y and Treas.,
The Medical Defence Association of Minnesota.
Winona, Minn., May 20, 1901.

## AMERICAN MEDICAL ASSOCIATION.

St. Paul, our twin-city, will be the center of medical thought the coming week, that city having been selected as the meeting place of the American Medical Association, which convenes on the fourth instant and continues its deliberations for four days. Without doubt the coming meeting will be the greatest in the history of the organization. Through the courtesy of Dr. George H. Simmons, secretary, and editor of the Journal, of the American Medical Association, the DIAL is permitted to publish the following programme of the sessions from advance proofs:

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### SECTION ON PRACTICE OF MEDICINE.

Tuesday, June 4—Afternoon Session—2 P. M.

1. Address of Chairman, J. M. Anders, Philadelphia.
2. Appendicitis; Pathological Anatomy, Diagnosis and Treatment, John B. Deaver, Philadelphia.
   Discussion opened by I. N. Love, New York; Philip D. Marvel, Atlantic City; A. A. Jones, Buffalo.
3. Inoculation of Malarial Fevers through the Agency of Mosquitos; A Further Consideration, E. A. Woldert, Philadelphia.
4. Some Phases of Malaria, J. B. McElroy, Stovall, Miss.
5. Clinical Observations in Malaria, G. W. Hudspeth, Little Rock, Ark.
   Discussion of papers 3, 4, 5, by Wm. Krauss, Memphis, Tenn.; Geo. Dock, Ann Arbor, Mich.; Whyte Glendower Owen, White Castle, La., and Wm. Britt Burns, Memphis, Tenn.

Wednesday, June 5—Forenoon Session—9 A. M.

6. The Chemical and Microscopic Value of Blood Examinations, W. D. Kelly, St. Paul, Minn.
7. Pernicious Anemia; Report of a Series of Cases, Thomas McCrae, Baltimore, Md.
8. The Leucocyte Count in Hemorrhage, George Douglas Head, Minneapolis, Minn.
9. Some Thoughts in Immunity, I. A. McSwain, Paris, Tenn.
10. Acromegally; Presenting Features of Interest, Chas. Lyman Greene, St. Paul, Minn.
11. The Oxygen Treatment in So-called Uric Acid Lesions, Alfred C. Croftan, Philadelphia.
12. Osomotic Pressure and its Relation to Uremic Manifestations, Heinrich Stern, New York.
13. Rheumatic Simulants, J. J. Walsh, New York.

Wednesday, June 5—Afternoon Session—2 P. M.

Symposium on Some Cirrhoses of the Liver.

14. Circulatory Disturbances Accompanying Cirrhoses with Inosculation of the Portal Branches with Systemic Veins, Charles G. Stockton, Buffalo, N. Y.
15. Cirrhoses of the Liver in Children, Wm. C. Hollopeter, Philadelphia, Pa.
16. The Caus of Ascites. J. C. Wilson, Philadelphia, Pa.
17. Cirrhoses with Pigmentation, T. B. Futcher, Baltimore, Md.
18. Relation of Intestinal Intoxications to Hepatic Cirrhoses, Judson Daland, Philadelphia, Pa.
19. Cirrhoses of the Liver Due to Metallic Poisons, Victor C. Vaughan, Ann Arbor, Mich.
20. Treatment of Cirrhoses of the Liver, J. H. Musser, Philadelphia, Pa.
   Discussion: George Dock, Ann Arbor, Mich.; Frank Billings, Chicago; James Tyson, Philadelphia, Pa.; J. B. Marvin, Louisville, Ky.; B. G. Henning, Memphis, Tenn.; Alfred Stengel, Philadelphia.
   Open discussion on Etiology and Pathology of Cirrhoses: J. B. Herrick, Chicago; J. A. Witherspoon, Nashville, Tenn.; Louis F. Bishop, New York.

Thursday, June 6—Forenoon Session—9 A. M.

21. Modified Treatment of Typhoid Fever, T. B. Greenley, Meadow Lawn, Ky.
22. Medical Shock, O. T. Osborne, New Haven, Conn.
23. Dyspepsia as a Brain and Nerve Strain Disease, Chas. H. Hughes, St. Louis, Mo.
24. The Treatment of Pneumonia, Edward F. Wells, Chicago.
25. Spread of Tuberculosis by Cough-

ing, E. Napoleon Boston, Philadelphia.

26. Tuberculosis as Determined by Cause and Mode of Onset, Louis Faugeres Bishop, New York.
27. Practical Value of Cultures from the Throat, M. H. Fussell, Philadelphia.
28. Genito-Urinary Examinations for the General Practitioner; with Demonstrations on Patient, Fred C. Valentine, New York.

Thursday, June 6—Afternoon Session—2 P. M.

Symposium on Pericarditis.

29. Clinical Observations in Pericarditis, Frank Billings, Chicago.
30. Pathology and Pathogenesis of Pericarditis, Jos. McFarland, Philadelphia.
31. The General Etiology of Pericarditis, Robert B. Preble, Chicago.
32. Relation of Pericarditis to Endocarditis and Myocarditis, Alfred Stengel, Philadelphia.
33. Adherent Pericardium, Robert H. Babcock, Chicago.
34. Tuberculous Pericarditis, Chas. F. McGahan, Aiken, S. C.
35. Cardiac Lesions as Observed in the Negro; with Special Reference to Pericarditis, Frank A. Jones, Memphis, Tenn.
36. Some Points in the Treatment of Pericarditis, Frank Parsons Norbury, Jacksonville, Ill.

Discussion on Pericarditis by Henry B. Favill, Chicago; J. H. Musser, Philadelphia; J. J. Walsh, New York; Delancey Rochester, Buffalo, N. Y.; O. T. Osborne, New Haven, Conn.; D. D. Saunders, Memphis, Tenn.

Friday, June 7—Forenoon Session—9 A. M.

Symposium on Small-Pox.

37. A Further Report on Pseudo or Modified Smallpox, T. J. Happel, Trenton, Tenn.
38. Small-pox; the Old and the New W. L. Beebe, St. Cloud, Minn.
39. Remarks Covering the Sanitary Features of Small-pox, Wm. Krauss, Memphis, Tenn.
40. The Diagnosis and Treatment of Small-pox, E. H. Pomeroy, Calumet, Mich.
41. The Diagnosis of Mild Small-pox as in the Present Outbreak of the Small-pox in this Country, Heman Spalding, Chicago.
42. The Distinguishing Characteristic Between Mild Discrete Small-pox and Chicken-pox, Frederick Leavitt, St. Paul, Minn.
43. Small-pox, H. M. Bracken, St. Paul, Minn.

Discussion on Small-pox by J. J. Walsh, New York; Louis Leroy, Nashville, Tenn.; Thos. Wm. Corlett, Cleveland, O.; J. D. Smythe, Greenville, Miss., and F. S. Raymond, Memphis, Tenn.

The foregoing will be a joint session with the Section on Hygiene and Sanitary Science.

Friday, June 7—Afternoon Session—2 P. M.

Symposium on Serum and Organotherapy.

44. Mode of Manufacture of Serums and Organo-Extracts, Chas. T. McClintock, Detroit, Mich.
45. Utility of Antitoxin Serums, Joseph McFarland, Philadelphia.
46. Further Observations on Serum Therapy in Croupous Pneumonia, J. C. Wilson, Philadelphia.
47. Anti-Tubercle Serum, E. A. de Schweinitz, Washington, D. C.

Informal discussion to be opened by Simon Flexner, Philadelphia.

48. Theory and Practice of Organotherapy, S. Solis Cohen, Philadelphia.
49. Acromegaly Treated with Pituitary Body, Sidney Kuh, Chicago.
50. Treatment of Graves' Disease with Thymus Gland, John M. Dobson, Chicago.

Informal discussion opened by Victor C. Vaughan, Ann Arbor, Mich.

A joint discussion with the section on Materia Medica and Therapeutics.

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## SECTION ON HYGIENE AND SANITARY SCIENCE.

Meets in Masonic Armory.

Tuesday, June 4—2 P. M.

1. Tonsillar Inflammations; Their Diagnosis, Bacterial Pathology, Treatment, and Quarantine, William G. Bissell, Buffalo, N. Y. (By invitation.)
2. Pulmonary Fearlessness, Wm. T. English, Pittsburg.

3. A Medical Examination as a Prerequisite to Marriage, J. C. Bateson, Scranton, Pa.
4. State Supervision of Marriage; Its Feasibility, Scope, Justification, Possibilities, W. H. Heath, Buffalo, N.Y. (By invitation.)

Wednesday, June 5—9 A. M.

5. The Limitations of Venereal Diseases, Denslow Lewis, Chicago.
   To be discussed by Fred. C. Valentine, New York; C. A. L. Reed, Cincinnati; Howard A. Kelly, Baltimore, and Joseph Price, Philadelphia.
6. Tuberculosis in Children, Sherman G. Bonney, Denver, Colo.
7. Tuberculosis in the Illinois Penitentiary, T. J. O'Malley, Joliet, Ill.

Wednesday, June 5—2 P. M.

8. Tuberculosis in Prisons and Asylums, H. M. Bracken, Minneapolis.
9. Tuberculosis Sanitaria, C. P. Ambler, Asheville, N. C.
10. Tuberculosis in the Middle States, and its Curability, John A. Robison, Chicago.
    Discussion of Institutions and Tuberculosis to be opened by A. C. Klebs, Chicago, and S. A. Knopf, New York City.
11. The Proper Management of the Tubercular Lung, Norman Bridge, Los Angeles, Cal.
12. The Relation of Sputum to the Spread of Tuberculosis, C. L. Minor, Asheville, N. C.

Thursday, June 6—9 A. M.

13. Tuberculosis of Animals in Some of its Relations to Human Tuberculosis, D. E. Salmon, D.V.M., Washington, D. C.
14. The Experience of Syracuse, N. Y., with the Compulsory Tuberculin Test of all Dairies Furnishing Milk to the City, B. S. Moore, Syracuse, N. Y.
    Discussion to be opened by M. H. Reynolds, St. Anthony Park, Minn.
15. The Climatology of Arizona with Reference to the Treatment of Pulmonary Tuberculosis, R. W. Craig, Phoenix, Ariz.
16. Tuberculosis in its Relation to the Welfare of the People of the United States in General and Colorado in Particular, Wm. M. Danner, Denver, Colo.
    Discussion to be opened by R. H. Babcock, Chicago.

Friday, June 7—9 A. M.

There will be a joint symposium held by this Section and that of Practice of Medicine on Small-pox.

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## SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

First Day, Tuesday, 2 P. M.

Address of Chairman, Dr. H. P. Newman, Chicago.

1. Methods of Incision for Vaginal Section, J. Clarence Webster, Chicago.
2. Indications for Vagino-Abdominal Hysterectomy, Rufus B. Hall, Cincinnati.
3. The Accidents and Complications of Pelvic Surgery and their Treatment, J. B. Deaver, Philadelphia.
4. Post Operative Intra-Peritoneal Hemorrhage, A. H. Cordier, Kansas City, Mo.
5. Contributing Factors in the Production of Peritonitis, J. G. Clark, Philadelphia.
6. The Advantages and Disadvantages of Drainage after Abdominal Section, Hunter Robb, Cleveland.

Wednesday, 9 A. M.

7. Atresiahymenalis, O. Thienhaus, Milwaukee, Wis.
8. Result Immediate and Remote of Conservative Surgery, A. Goldspohn, Chicago.
9. Electrothermic Hemostasis in Abdominal and Pelvic Surgery, A. J. Downes, Philadelphia.
10. The Uses and Abuses of Morphine in Abdominal Surgery, L. H. Dunning, Indianapolis.

Wednesday, 2 P. M.

11. Fibroids, Thomas S. Cullen, Baltimore.
12. The Complications and Degenerations of Fibroid Tumors as Bearing on the Treatment of these Growths, Chas. P. Noble, Philadelphia.
13. How Shall We Deal with Uterine Myomata? E. E. Montgomery, Philadelphia.
14. A New Operation for extirpation of Cancer of the Rectum, M. D. Mann,

Buffalo, N. Y. (By invitation.)

15. Carcinoma of the Uterus, J. M. Bardy, Philadelphia.
16. The Various Incisions Appropriate to Different Renal Operations, Howard A. Kelly, Baltimore,
17. The Relative Merits of the Different Methods of Ureteroureteral Anastomosis, J. Wesley Bovee, Washington, D. C.

Thursday, 9 A. M.

18. Treatment of Posterior Displacements of the Uterus, A. H. Goelet, New York.
19. Surgical Treatment of Retroversion of the Uterus, Franklin H. Martin, Chicago.
20. A New Operation for Retro-Displacement of the Uterus, Emil Ries, Chicago.
21. The Increasing Sterility of American Women, George J. Engelmann, Boston.

Thursday, 2 P. M.

22. Obstetrics as a Specialty, Jos. Price, Philadelphia.
23. Position of the Patient During Delivery, W. D. Porter, Cincinnati.
24. Asepsis in Midwifery, E. Gustave Zinke, Cincinnati.
25. Puerperal Asepsis, J. F. Moran, Washington, D. C.
26. Indications and Contraindications for the use of the Curette in Obstetric Practice, H. D. Fry, Washington, D. C.
27. Advantage of Drill upon the Manikin, Eliza H. Root, Chicago.
28. A Case of Streptococcus Infection following Labor, Operation, Recovery, W. H. Humiston, Cleveland.
29. Ectopic Gestation, W. H. Wathen, Louisville.
30. Extrauterine Pregnancy, F. F. Lawrence, Columbus.
31. Abdominal Section During Pregnancy, W. W. Potter, Buffalo, N. Y. (By invitation.)

Friday, 9 A. M.

32. Puerperal Eclampsia: Its Etiology and Treatment, T. J. Beattie, Kansas City, Mo.
33. Pregnancy Following Ventro-suspension of the Uterus, Reuben Peterson, Chicago.
34. Cesarean Section as a Method of Treatment for Placenta Previa, W. J. Gillette, Toledo.
35. Some Results of Ovarian Surgery with Further Report Upon Intrauterine Implantation of Ovarian Tissue, A. Palmer Dudley, New York.
36. Gall-stones and Insane Women, W. P. Manton, Detroit, Mich.

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SECTION OF SURGERY AND ANATOMY.

Tuesday, June 4—Afternoon Session.

Surgery of the Brain and Spinal Cord.

1. Remarks on the Surgery of the Spinal Cord, with Illustrative Cases, Andrew J. McCosh, New York City.
2. Spina Bifida, with the Report of an Interesting Case, Paul F. Eve, Nashville, Tenn.
3. The Methodical Exploration of the Brain for Fluid, Christian Fenger, Chicago.
4. The Immediate and Remote Effects of Brain Injury, D. S. Fairchild, Clinton, Iowa.
5. Cases of Trephining for Pathological Lesions of the Brain, John C. Munro, Boston.
   Discussion opened by W. W. Keen, Philadelphia. Discussion continued by Wm. L. Rodman, Philadelphia, and Angus McLean, Detroit, Mich.

Wednesday, June 5—Morning Session.

6. Mortality of Appendicitis, John B. Deaver, Philadelphia.
7. Some Unusual Features of Appendicitis and Their Treatment, Ernest Laplace, Philadelphia.
8. Abdominal Contusions Associated with Rupture of the Intestine, Homer Gage, Worcester, Mass.
9. The Knot Within the Lumen, in Intestinal Surgery, with Report of Eight Cases, F. Gregory Connell, Chicago.
10. Surgery of the Colon, H. O. Walker, Detroit, Mich.
    Discussion opened by Willis G. Mcdonald, Albany, N. Y. (By invitation), D. A. K. Steele, and F. C. Schaefer, Chicago.

Wednesday, June 5—Afternoon Session.

The Surgical Aspect of Carcinoma.

11. The Nature of the Cancerous Process, Roswell Park, Buffalo, N. Y.
12. The Present Status of the Carcinoma

Question, Nicholas Senn, Chicago.

13. Early Diagnosis of Carcinoma: Methods, Charles A. Powers, Denver, Colo.
14. The Pathology of Breast Carcinoma and its Relation to Early Diagnosis and Treatment, Wm. S. Halsted and J. C. Bloodgood, Baltimore, Md.
15. Carcinoma of the Cecum, Wm. J. Mayo, Rochester, Minn.
16. Improved Method for Resecting High Rectal Carcinoma, Robert F. Weir, New York City.
17. Method of Operating on Carcinoma of the Tongue, J. Collins Warren, Boston.
18. Treatment of Malignant Diseases by Surgical Operation, Frederic S. Dennis, New York City.

Thursday, June 6—Morning Session.

19. Hemostasis in Amputation at the Hip-Joint, a Resumé of 262 Cases by the Author's Method, John A. Wyeth, New York City.
20. Autoplastic Suture in Hernia and other Ventral Wounds, L. L. McArthur, Chicago.
21. A New Method of Skiagraphic Diagnosis for Renal and Ureteral Surgery, L. E. Schmidt and G. Kolischer, Chicago.
22. Prostatotomy versus Prostatectomy for Prostatic Hypertrophy, Ramon Guiteras, New York City.
23. Prostatectomy, the Method of Choice in the Management of Prostatic Obstruction, Eugene Fuller, New York City.
24. A Further Report on Permanent Catheterization, J. R. Eastman, Indianapolis, Ind.
25. Fallacies in the Treatment of Urethral Diseases, Robert Holmes Greene, New York City.
    Discussion opened by Robert H. W. Dawbarn, New York City.

Thursday, June 6—Afternoon Session.
The Surgery of the Chest.

26. Pneumectomy and Pneumotomy, J. B. Murphy, Chicago.
27. Insufflation of the Lungs and its Application to Pulmonary Surgery, Rudolph Matas, New Orleans, La.
28. Removal of Foreign Bodies from the Trachea and Bronchi, DeForest Willard, Philadelphia.
29. Treatment of Empyema, James H. Dunn, Minneapolis.
30. Decortication of the Lung, George Ryerson Fowler, Brooklyn, N. Y.
    Discussion opened by Frederick W. Parham, New Orleans, La., and continued by A. C. Bernays, St. Louis, Mo.

Friday, June 7—Morning Session.

31. Abdominal Surgery, Maurice Richardson, Boston.
32. The Indications for and Against Total Removal of the Human Stomach, G. Childs Macdonald, San Francisco, Cal.
33. Diagnosis and Treatment of Kidney Stone, Arthur D. Bevan, Chicago.
34. The Surgery of the Gall-Bladder and Gall-Ducts, Alexander H. Ferguson, Chicago.
35. Acute Infective Cholangitis and Cholecystitis as a Complication of Gall-Stones, Daniel N. Eisendrath, Chicago.
36. Dissecting Abscesses of Abdominal Wall Producing Symptoms Simulating Pott's Disease of the Spine. James B. Bullitt, Louisville, Ky.
37. Experimental and Clinical Observations on the Therapeutics of Abdominal Surgery, George W. Crile, Cleveland, Ohio.
    Discussion opened by Howard A. Kelly, Baltimore Md., and Frank D. Smythe, Memphis, Tenn.

Friday, June 7—Afternoon Session.

38. The Roentgen Rays in Differentiating between Osseous Cyst, Osteosarcoma and Ostemyelitis with Skiagraphic Demonstration, Carl Beck, New York City.
39. Fracture of the Femoral Neck, C. E. Ruth, Keokuk, Iowa.
40. Gynecology: Its Contribution to Surgery, Henry O. Marcy, Boston, Mass.
41. A Simple Operation for the Treatment of Hemorrhoids, J. Rawson Pennington, Chicago.

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## SECTION ON NERVOUS AND MENTAL DISEASES.

Meets in Committee Room of State Capitol.

Tuesday, June 4—Afternoon Session—2 O'clock.

1. Address of Chairman, H. A. Tomlinson, St. Peter, Minn.
2. Etiology of Paretic Dementia, Frank

P. Norbury, Jacksonville, Ill.

3. Symptomatology of Cerebral Hemorrhage, F. Savary Pearce, Philadelphia.
4. Treatment of Cerebral Hemorrhage, D. R. Brower, Chicago.
5. The Verile or Genesiac Reflex as Pudic Nerve Innervation Phenommena, C. H. Hughes, St. Louis, Mo.
6. A Case of Alexia Caused by a Bullet Wound with Successful Location and Removal of the Latter, G. W. McCaskey, Fort Wayne, Ind.
7. What Can be Done for the Epileptic in a Medical Way, R. H. Porter, Chicago.
8. The Treatment of the Acute Psychoses in Private Practice, C. Eugene Riggs, St. Paul, Minn.
9. Treatment of Neurasthenia, J. G. Biller, Cherokee, Iowa.
10. A Case of Acute Poliomyelitis Anterior in a Youth of 18 Years. Remarks on the Sensory Symptoms, Frank R. Fry, St. Louis, Mo.

Wednesday, June 5—Afternoon Session —2 O'clock.

Symposium on Syphilis of the Brain.

(This Symposium is arranged with special reference to the needs of the general practitioner.)

11. Nervous Manifestations, Hugh T. Patrick, Chicago.
12. The Psychosis in Cerebral Syphilis, Richard Dewey, Wauwatosa, Wis.
13. Syphilis of the Nervous System; its General Pathology, with Remarks on Treatment, F. W. Langdon, Cincinnati, Ohio.
14. The Specific and Non-specific Lesions Resulting from Syphilis, and Their Influence upon Diagnosis, Prognosis and Treatment, J. T. Eskbridge, Denver, Colo.
15. Suggestions for Lessening the Frequency of Relapse After Treatment of Morphinism, A. J. Pressey, Cleveland, Ohio.
16. Injuries, Feigned and Real, with their Differentiation and Medicolegal Aspect, Lambert Ott, Philadelphia.
17. The Psychoses of Chorea, Harold N. Moyer, Chicago.
18. Three Cases of Paralysis of the Serratus Magnus and the Trapezius—Alar Scapula, Augustus A. Eshner, Philadelphia.
19. Mirror Writing and Inverted Vision, Albert B. Hale, and Sydney Kuh, Chicago.
20. Fear as an Element of Nervous Diseases and its Treatment, John Punton, Kansas City, Mo.

Thursday, June 6—Afternoon Session.

21. Ten Cases of Multiple Neuritis, W. A. Jones, Minneapolis, Minn.
22. A Case of Localized Amnesia with Remarks Thereon, Edward E. Mayer, Pittsburg, Pa.
23. Dementia Following Inebriety, T. D. Crothers, Hartford, Conn.
24. The Problem of Heredity, James G. Kiernan, Chicago.
25. The Importance of Heredity as a Cause of Insanity, Arthur McGugan, Kalamazoo, Mich.
26. Persistent Brachial Neuralgia from Hypodermic Injection. Incipient Lateral Sclerosis with Recovery, Leo M. Crafts, Minneapolis, Minn.
27. Space Neuroses, John E. Purdon, Turlock, Cal.
28. Autotoxemia as a Factor in the Neuroses, George F. Butler, Alma, Mich.
29. The Circulation in the Nervous System, Herman Gasser, Platteville, Wis.
30. Sudden and Temporary Mental Aberration—Unconscious Automatism —Temporary Irresponsible States, Samuel Ayers, Pittsburg, Pa.
31. A Case of Myasthenia Gravis, Haldor Sneve, St. Paul, Minn.

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## SECTION ON OPHTHALMOLOGY.

Tuesday, June 4—Afternoon Session.

1, Address of Chairman.
2. Treatment of Strabismus; Measures Other than Operative, Dr. Edward Jackson, Denver, Colo.
3. Treatment of Strabismus; Operative Measures, Dr. C. F. Clark, Columbus, Ohio.
4. Strabismus: Its Treatment, Dr. A. E. Davis, New York City. (By invitation.)
5. The Cosmetic and Visual Results in Squint, Dr. J. M. Ray, Louisville, Ky. Discussion opened by Drs. C. M. Oliver, Frank Allport, and F. C. Todd.
6. Concerning the Check Ligament,

Dr. J. E. Colburn, Chicago, Ill.

Wednesday, June 5—Morning Session.

Exhibition of Specimens and New Instruments—Fiftieth Anniversary of the Invention of the Ophthalmoscope—Exhibit of Ophthalmoscopes and Ophthalmoscopic Literature.

Address on the Origin and Development of the Instrument, Together with a Description of the Historic Exhibit of Ophthalmoscopes and Publications on Ophthalmoscopy Prepared for this Meeting, Dr. H. Friedenwald, Baltimore, Md.

Address on the Life of Helmholtz, Dr. Casey A. Wood, Chicago, Ill.

7. The Comparative Values of Hyoscin, Atropin, Homatropin and Scopolamin as Cycloplegics, Dr. C. H. Baker, Bay City, Mich.
   Discussion opened by Drs. Leartus Connor and C. M. Cobb.
8. Tarsadenitis Meibomica, Dr. M. F. Weymann, St. Joseph, Mo.
9. Report of a Case of Retroflexion of the Iris, Dr. A. A. Hubbell, Buffalo, N. Y.
   Discussion opened by Dr. Eugene Smith, of Detroit.

Wednesday, June 5—Afternoon Session.

10. Treatment of Heterophoria; Non-Surgical Measures, Dr. George M. Gould, Philadelphia.
11. Treatment of Heterophoria; Surgical Treatment. Dr. G. C. Savage, Nashville, Tenn.
    Discussion opened by Dr. S. D. Risley.
12. Table of Paralyses of Ocular Muscles, Dr. H. M. Starkey, Chicago, Ill.
    Discussion opened by Drs. F. C. Holtz and Wm. Wilder.
13. The Extraction of Hard Cataract without Iridectomy, Dr. S. D. Risley, Philadelphia, Pa.
    Discussion opened by Drs. H. V. Wuerdemann and F. C. Hotz.
14. Relation of Asthenopia to Disturbances of the Digestive System, Dr. John McReynolds, Dallas, Texas.
    Discussion opened by Drs. C. A. Wood and J. E. Weeks.
15. Ocular Lesions Associated with Constitutional Diatheses, Dr. H. I. Jones, San Francisco, Cal.
    Discussion opened by Dr. W. F. Southard.

Thursday, June 6—Morning Session.

Exhibition of Specimens and New Instruments.

16. Economic Limitations of the Visual Acuity in the Various Trades and Professions, Dr. H. V. Wuerdemann, Milwaukee, Wis.
17. Further Report on the Visual and Aural Qualifications of Transportation Employees, Dr. Frank Allport, Chicago, Ill.
18. Mules' Operation. With cases, Dr. Frank C. Todd, Minneapolis, Minn. Discussion opened by Dr. L. Webster Fox, and Frank Allport.
19. Plastic Operations for the Preservation of Sightless Stumps, Dr. Harold Gifford, Omaha, Neb.
20. Report of Two Cases of Orbital Surgery, Dr. Adeline Portman, Washington.
21. Enucleation in Two Minutes, with Demonstration, Dr. A. T. Mitchell, Vicksburg, Miss.

Thursday, June 6—Afternoon Session.

22. The Newer Pathology of the Retina, with Special Referance to the Changes Produced in the Ganglion Cells by Certain Toxic Agents, Dr. H. Friedenwald, Baltimore, Md.
23. Atrophy of the Retina, Dr. D. S. Reynolds, Louisville, Ky.
24. A Case of Blindness Due to Drinking Bay Rum Compared with Reported Cases Due to Methyl Alcohol and Jamaica Ginger, Dr. H. Moulton, Fort Smith, Ark.
    Discussion opened by Dr. H. Gifford.
25. Complete Recovery from Double Neuroretinitis, Clinically Resembling Albuminuric Retinitis, in a Case of Prolonged Hematuria with Symptoms of Bright's Disease, Dr. C. A. Veasey, Philadelphia, Pa.
26. Some Points to be Observed in the Use of the Perimeter, Dr. Geo. F. Keiper, LaFayette, Ind.
27. A Study of the Color-Changes in Chromogenic Bacteria, Dr. C. A. Oliver, Philadelphia, Pa.
28. The Value of Excision of the Superior Cervical Ganglion of the Sympathetic in Certain Eye Diseases, Dr. Geo. F. Suker, Toledo, Ohio.

Discussion opened by Dr. Casey Wood.

Friday, June 7—Morning Session.

Exhibition of Specimens and New Instruments.

29. Herpes Zoster Ophthalmicus with brief Report of Five Cases, Dr. W. C. Bane, Denver, Colo.
    Discussion opened by Drs. Edward Jackson and H. M. Starkey.
30. The Corneal Lesions of Acquired Syphilis, Dr. Wm. H. Wilder, Chicago, Ill.
    Discussion opened by Dr. S. D. Risley and C. A. Wood.
31. Lachrymal Stenosis in Infants and its treatment, Dr. Dunbar Roy, Atlanta, Ga.
    Discussion opened by Dr. G. C. Savage.
32. Metamorphopsia Varians with a Report of Three Cases, Dr. Wm. H. Dudley, Easton, Pa.
    Discussion opened by Drs. J. E. Weeks and S. D. Risley.
33. Injuries of the Choroid, Dr. E. O. Sisson, Keokuk, Iowa.
    Discussion opened by Dr. H. V. Wuerdemann and Cassius D. Wescott.
34. New Instrument for Determining Position of Axes of the Eyes, Dr. C. H. Williams, Boston, Mass.
35. Spontaneous Clearing of a Cataractous Lens, Dr. Hiram Woods, Jr., Baltimore, Md.

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## SECTION ON DISEASES OF CHILDREN.

Meets in Ryan Annex, Builders' Exchange.

Tuesday, June 4—Afternoon Session.

1. Address of Chairman, Samuel W. Kelley, Cleveland, Ohio.
2. Physiologic and Pathologic Conditions of the Alimentary Tract in Children, A. L. Benedict, Buffalo, N. Y.
3. Measles, J. B. Garber, Dunkirk, Ind.
4. The Pathology of Pertussis, J. M. Postle, Hinckley, Ill.
5. A Case of Pyloric Spasm in an Infant, C. Herrman, New York City. (By invitation.)
6. The Use of Normal Salt Solution in the Diseases of Infancy, W. C. Hollopeter, Philadelphia.
7. Rheumatic Endocarditis in Children, Edward F. Wells, Chicago.

Wednesday, June 5—Morning Session.

Symposium on Typhoid Fever in Children.

8. Symptoms and Course of Typhoid Fever, J. P. Crozer Griffith, Philadelphia.
9. Diagnosis of Typhoid Fever in the Laboratory, John Lovett Morse, Boston.
10. Treatment of Typhoid Fever, H. E. Tuley, Louisville, Ky.
11. Hydrotherapy in Typhoid Fever, James C. Wilson, Philadelphia.
12. The Treatment of Temperature by Drugs, Edwin Rosenthal, Philadelphia.
13. Dietetic Treatment of Typhoid Fever in Infants and Children, Louis Fischer, New York City.
14. The Treatment of Typhoid Fever with Special Reference to the Intrarectal Injection of Normal Salt Solution, E. Stuver, Fort Collins, Colo.
15. Multiple Gangrene Associated with Cholangitis Complicating Typhoid Fever, Isaac A. Abt, Chicago.
    Discussion opened by Victor C. Vaughan, Ann Arbor, Mich.; J. M. Anders, Philadelphia, and S. Solis-Cohen, Philadelphia.

Wednesday, June 5—Afternoon Session.

16. Prevention of Pulmonary Tuberculosis in Predisposed Children, John A. Robison, Chicago.
17. The Diagnosis and Treatment of Catarrhal Pneumonia, S. Solis-Cohen, Philadelphia.
18. Protracted Influenzal Pneumonia in Children, F. X. Walls, Chicago.
19. Prolonged Intubations, Edwin Rosenthal, Philadelphia.
    Discussion by Louis Fischer, New York; Rosa Engelmann, Chicago; F. X. Waxham, Denver, and William M. Welch, Philadelphia.
20. Congenital Malformations with Roentgen Ray Demonstrations, Carl Beck, New York City.
21. Membranous Colitis in Infants, Charles Douglas, Detroit, Mich.
22. Gonorrhea in Boys, A. L. Wolbarst, New York City. (By invitation.)
    Discussed by Ferd. C. Valentine,

New York City.

23. A Case of Ureteral Calculus in a Boy of Ten, W. W. Keen, Philadelphia.

24. Diabetes Mellitus in Children, A. C. Cotton, Chicago.

25. Albuminuria in Disease of the Kidneys in Infancy and Childhood, John R. Rathmell, Chattanooga, Tenn.

26. Congenital Cystic Kidney, William Jepson, Sioux City, Iowa.

Thursday, June 6—Afternoon Session.

Symposium on School Hygiene.

27. The Introduction and Management of School Hygiene, Leigh K. Baker, Cleveland, Ohio.

28. School Hygiene and its Problems, William H. Burnham, Worcester, Mass.

29. Physical Culture in Children and the Objects to be Attained, John Madison Taylor, Philadelphia.

30. The Pubescent School Girl, William Edgar Darnall, Atlantic City, N. J.

31. Diagnosis of the Backward Child, A. W. Wilmarth, Chippewa Falls, Wis.

32. Speech as a Factor in the Diagnosis of the Backward Child, G. Hudson Makuen, Philadelphia.

33. A Plea for the Backward Child, C. F. Wahrer, Fort Madison, Iowa.

34. Some Considerations Regarding the Medical Criticisms of the Hygiene of Early School Life, J. Noer, Stoughton, Wis.

Discussion opened by Joseph B. Marvin, Louisville; W. C. Hollopeter, Philadelphia, and Louis Fischer, New York City.

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## SECTION ON STOMATOLOGY.

Tuesday, June 4—2 P. M.

Chairman's Address, R. R. Andrews, Cambridge, Mass.

Symposium on State Boards of Dental Examiners in Their Relation to the Profession and the Colleges.

Methods of Appointment: 1. By State Universities—New York. 2. By State Boards of State Officials ex-officio, Nebraska. 3. By Governors on Recommendation of the Profession, William Carr, New York City.

Revenue for Conducting the Work of the Boards of Examiners: 1. By Taxation of the People. 2. By Fees from Examination of Candidates. 3. By Taxation of the Profession, George L. Parmele, Hartford, Conn., and V. E. Turner, Raleigh, N. C.

The Dental College Standard: 1. Is it What it Should Be? 2. If not, What Improvements Should be Made? 3. How May the Requirements be Improved? Charles Chittenden, Madison, Wis.

Licensing: 1. By Examination. 2. By Diploma, J. A. Libby, Pittsburg, Pa.

Wednesday, June 5—2 P. M.

Symposium on Degeneracy of the Pulp.

Preliminary Work, Eugene S. Talbot, Chicago.

Literature of the Pulp, Vida A. Latham, Rogers Park, Ill.

Cutting, Staining and Mounting, Martha Anderson, Moline, Ill.

Local Anesthesia, A. H. Peck, Chicago.

Paradental Atrophy, W. E. Walker, Pass Christian, Miss.

Periods of Stress and their Dental Marks, Jas. G. Kiernan, Chicago.

Surgical Treatment of Cleft Palate, G. V. I. Brown, Milwaukee, Wis.

Infectious Diseases, Alice Steeves, Chicago.

Simple Gingivitis, Geo. T. Carpenter, Chicago.

Thursday, June 6—2 P. M.

Military Dental Practice: Its Modifications and Limitations, Henry D. Hatch, New York City.

The Tongue as a Breeding Place for Bacteria, M. H. Fletcher, Cincinnati, Ohio.

Pathology of the Alveolar Process, Eugene S. Talbot, Chicago.

Tuberculosis of the Alveolar Process and Surrounding Tissues and a Few Methods of Differential Diagnosis, V. A. Gudex, Milwaukee, Wis.

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## SECTION ON CUTANEOUS MEDICINE AND SURGERY.

Meets in Masonic Banquet Hall.

Tuesday, June 4—2:30 P. M.

1. Address of Chairman: Ancient and Modern Conception of Syphilis, William L. Baum, Chicago.
2. The Relations of the Menstrual Function to Tertian Diseases of the Skin, L. Duncan Bulkley, New York City.
3. Pathology and Treatment of Cutaneous Cancer, with Special Reference to its Non-parasitic Nature, M. L. Heidingsfeld, Cincinnati, Ohio.
4. The Increasing Prevalence of Contagious Skin Diseases, Henry W. Stelwagon, Philadelphia.
5. Syphilis and its Relations to Blastomycetic Dermatitis, Henry G. Anthony, Chicago.
6. Adenoma Sebaceum of the Non-symmetrical Type of Darier, William S. Gottheil, New York City.
7. Notes on a Case of Keratosis Follicularis (Porospermosis), Joseph Zeisler, Chicago.

Wednesday, June 5—2:30 P. M.

8. Lantern Slide Demonstration on Skin Cancer, M. L. Heidingsfeld, Cincinnati, Ohio.
9. Lantern Slide Exhibition Showing the Clinical, Pathological and Bacteriological Features of Eleven Cases of Blastomycosis of the Skin, James Nevins Hyde and Frank Hugh Montgomery, Chicago.
10. Lantern Slide Demonstration of the Exanthemata, from Original Photographs, William Thomas Corlett, Cleveland, Ohio.
11. Demonstrations of Case: Lupus Erythematosus Treated by Hot Air. A Case of Leprosy in a Man born in and who has never been outside of Minnesota, Burnside Foster, St. Paul, Minn.
12. Epidermolysis Bullosa Hereditaria. Louis E. Schmidt, Chicago.
13. Report of a Case of Epithelioma of Long Duration and Beginning in Early Manhood, William Frick, Kansas City, Mo.
14. Notes on Recent Cases of Extra-genital Chancres, L. Duncan Bulkley, New York City.

Thursday, June 6—2:30 P. M.

15. Rhinoscleroma, Chas. Warrenne Allen, New York City. (By invitation.)
16. Dermatomycoses in their Relation to Allen's Iodid Test, Jacob Sobel, New York City. (By invitation.)
17. Squamous Erythroderma, Augustus Ravogli, Cincinnati, Ohio.
18. Phototherapy in Cutaneous Medicine. A Preliminary Communication, William S. Gottheil, New York City.
19. Lichen Hypertrophicus, David Lieberthal, Chicago.
20. Feigned Skin Diseases, George W. Davis, Kansas City, Mo.
21. Clinical Features of Blastomycetic Dermatitis as Observed in Three Cases by the Author, A. W. Brayton, Indianapolis, Ind.
22. Treatment of Psoriasis, T. P. Whaley, Charleston, S. C.

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### SECTION ON LARYNGOLOGY AND OTOLOGY.

Tuesday, June 4—2 P. M.

1. Address of Chairman, John N. Mackenzie, Maltimore, Md.
2. Remarks on the Treatment of Laryngeal Tuberculosis, P. S. Donnellean, Philadelphia, Pa.
3. The Treatment of Laryngitis, O. T. Freer, Chicago.
4. Edematous Laryngitis with Report of Case, J. S. Gibb, Philadelphia.
5. Types of Membraneous Pharyngitis W. E. Casselberry, Chicago.
6. Total Extirpation of Thyroid Gland G. F. Cott, Buffalo.
7. Foreign Bodies in the Bronchi, F. J Quinlan, New York City.

Wednesday, June 5—9 A. M.

8. The Manifestations of Luetic Disease in the Upper Respiratory Passages and Ear, W. Scheppergrell, New Orleans, La.
9. Observation on Intranasal Contract and its Consequences, J. E. Schadle, St. Paul, Minn.
10. The Relation of the Middle Turbinate Body to Chronic Nasal Diseases, C. S. Baker, Bay City, Mich.
11. The Pathology of Inflammation of the Posterior Part of the Nasal Septum, J. L. Goodale, Boston.
12. Asthma as a Result of Nasal Conditions: Treatment, etc., J. H. Farrell, Chicago.
13. The Effect which the So-called "Catarrhal" Disease of the Nose and

Throat may have upon the General Health, C. M. Cobb, Lynn, Mass.

Wednesday, June 5—2 P. M.

14. Empyema of the Frontal Sinus, E. Fletcher Ingals, Chicago.
15. Diseases of Accessary Sinuses, E. L. Shurly, Detroit, Mich.
16. Anomalies of the Frontal Sinus and their Bearing on Chronic Sinusitis. Redmond W. Payne, San Francisco, Cal.
17. Carcinoma of the Nasopharynx, Chevalier Jackson, Pittsburg, Pa.
18. Sarcoma of Nasal Passages, with Report of Case, Dunbar Roy, Atlanta, Ga.
19. Case of Epithelioma of Upper Respiratory Tract, S. A. Oren, Lanark, Ill.
20. The Supratonsilar Fossa, J. Homer Coulter, Chicago.
21. An Unusual Anomaly Affecting the Faucial Tonsil, George L. Richards, Fall River, Mass.
22. Traumatic Affection of the Uvula, H. Seymour Oppenheimer, New York City.
23. The Pathology of Adenoids in the Adult, A. T. Mitchell, Vicksburg, Miss.

Thursday, June 6—9 a. m.

24. The Diagnosis and Treatment of Mastoiditis, E. B. Dench, New York City.
25. Mastoiditis, After Subsidence and Without Recurrence of Tympanic Disease, Hiram Woods, Jr., Baltimore, Md.
26. Experiments on Fresh Cadaver in Relation to Suppurative Otitis Media and Mastoiditis, F. C. Todd, Minneapolis, Minn.
27. Gelle's Test, Norval H. Pierce, Chicago.

Thursday, June 6—2 p. m.

28. Report of a Case of Suppuration of the Parotid Gland with Suppuration of External Auditory Canal, F. A. Packard, Philadelphia.
29. Report of Case of Unusual and Interesting Tertiary Manifestations, G. Hudson Makuen, Philadelphia.
30. Dangerous Hemorrhage after the Removal of Enlarged Tonsils and Adenoids, with Report of a Case, A. C. Getchell, Worchester, Mass.
31. The Rationale and Technic of Pneumatic Aural Massage, B. Alex. Randall, Philadelphia.
32. Title to be announced, C. W. Richardson, Washington, D. C.
33. Adrenalin Chloride in Surgery of the Nose and Throat, W. W. Bullette, Pueblo, Colo.

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## SECTION ON MATERIA MEDICA, PHARMACY AND THERAPEUTICS.

Meets in Senate Chamber, State Capitol.

Tuesday, June 4—2 p. m.

1. Modern Therapeutics, George F. Butler, Chicago.
2. Experimental Work in Intra-organic and Venous Injections and Blood Extracts in the Cure of Acute Organic Diseases, W. Byron Coakley, Chicago.
3. Therapeutic Indications Presented by the Conditions of the Blood in Disease, O. T. Osborne, New Haven.
4. Chronic Myocarditis, J. H. Musser, Philadelphia.
5. Treatment of Obesity, Heinrich Stern, New York City.

   Discussion on preceding papers to be opened by A. R. Edwards, Chicago.
6. Treatment of Cancer by Roentgen Rays, Francis Williams, Boston.
7. Treatment of Neurasthenia, Harold N. Moyer, Chicago.

Wednesday, June 5—9 A. M.

8. The Importance of an Established Plan of Treatment in Chronic Cases and How it may be Attained by a Patient Who Must Travel, L. F. Bishop, New York City.
9. A Plea for More Uniformity and Strength in Our Armamentarium, C. F. Wahrer, Fort Madison.
10. Standardization of Crude Drugs and Galenical Preparations, A. B. Lyons, Detroit.
11. Report on Medicines Used by One Hundred St. Louis Physicians, H. M. Whelpley, St. Louis.
12. Analysis of Cascara Sagrada, L. L. Solomon, Louisville.

Wednesday, June 5—2 P. M.

Symposium on Treatment of Pulmonary Tuberculosis.

13. Indication for and Utility of Alti-

tude Treatment of Pulmonary Tuberculosis, S. E. Solly, Colorado Springs.

14. Adaptability of Southern California and Similar Climates to the Needs of Consumptives, Norman Bridge, Los Angeles.
15. Specific Treatment of Pulmonary Tuberculosis, E. L. Shurley, Detroit.
16. Tuberculin Treatment of Pulmonary Tuberculosis, with Statistics, Charles Dennison, Denver.
17. Specific Therapeutics in Pulmonary Tuberculosis, Arnold C. Klebs, Chicago.
18. Title not given, J. Edward Stubbert, Liberty, N. Y.
19. Nineteen Years' Experience with Creosote in Tuberculosis, A. Burroughs, Asheville, N. C.

Discussion of Treatment of Tubercular Disease of the Lungs, to be Opened by R. H. Babcock, Chicago.

20. Treatment of Lobar Pneumonia, De Lancey Rochester, Buffalo.
21. The Abortion Treatment of Pneumonia; a Plea for the Use of Cardiac Depressants in the Treatment of the Congestion Stage of Pneumonia, W. L. Dickerson, St. Louis.

Thursday, June 6—9 A. M.
Symposium on Gastric Disorders.

22. Influence of Certain Common Remedies upon Gastric Functions, Boardman Reed, Philadelphia.
23. Treatment of Gastric Ulcer, Gustav Fuetterer, Chicago.
24. Muriatic Acid in Gastric Diseases, Frank Billings, Chicago.
25. Treatment of Gastric Hyperesthesia, Charles C. Stockton, Buffalo.
26. On Therapeutic Management of Dyspepsia from the Neurologist's Standpoint, C. H. Hughes, St. Louis.

Discussion of Gastric Disorders, to be opened by James B. Herrick, Chicago.

Thursday, June 6—2 P. M.
Symposium on Organotherapy.

27. Mode of Manufacture of Serums and Organ Extracts, Charles T. McClintock, Detroit.
28. Theory and Practice of Organotherapy, S. Solis-Cohen, Philadelphia.
29. Acromegaly Treated with Pituitary Body, Sydney Kuh, Chicago.
30. Treatment of Graves' Disease with Thymus Extract, John M. Dodson, Chicago.
31. Pharmacology of the Suprarenal Gland and a Method of Assaying its Products, E. M. Houghton, Detroit.
32. The Active Principle of Suprarenal Glands, Jokichi Takamine, New York.

Discussion on Organotherapy, to be opened by Victor C. Vaughan, Ann Arbor.

33. The Future of Serum Therapy, Joseph McFarland, Philadelphia.
34. Further Observations on Serum Therapy in Croupous Pneumonia, J. C. Wilson, Philadelphia.
35. Antitubercle Serum, E. A. de Schweinitz, Washington.

Discussion on Serumtherapy, to be opened by Simon Flexner, Philadelphia.

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## SECTION ON PHYSIOLOGY AND DIETETICS.

Meets in Builders' Exchange, Ryan Annex.

Tuesday, June 4—Afternoon Session.
2 O'clock.

1. Address of Chairman. Food as a Principal Factor in the Causation of Disease, Elmer Lee, New York City.
2. Artificially Prepared Foods, L. Breisacher, Detroit, Mich.
3. Unsolved Problems in Physiological Chemistry, A. L. Benedict, Buffalo, N. Y.
4. A Study of Tea and Coffee Intoxication, Heinrich Stern, New York City.

Wednesday, June 5—Afternoon Session.
2 O'clock.

5. The Evaluation of Anthropometric Data, Winfield S. Hall, Chicago.
6. The Education of the Degenerate—A Physicobiologic Study, John Madden, Milwaukee, Wis.
7. The Nervous Relation in Diseases of the Nutritive System, H. S. Drayton, New York City.
8. Isolation of the Active Principles of the Suprarenal Gland—A Review of the Work, T. B. Aldrich, Detroit, Mich.

Thursday, June 6—Afternoon Session.
2 O'clock.

9. ——————, George P. Dreyer, Chicago.
10. Food Products from Diseased Animals, D. E. Salmon, Washington.
11. The Teaching of Practical Dietetics in Medical Schools, R. O. Beard, Minneapolis.
12. Some Problems of Nutrition, Alexander Haig, London, Eng.

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## SECTION ON PATHOLOGY AND BACTERIOLOGY.

Meets in Ryan Annex.

1. Giant Cell Embolism of Pulmonary Capillaries, Alfred S. Warthin, Ann Arbor, Mich.
2. Effect of Direct, Alternating and Tesla Currents and X-Rays on Bacteria, F. Robert Zeit, Chicago.
3. Demostration of Specimens, Slides, and Photomicrographs of Uretero-Intestinal Anastomosis, F. Robert Zeit, Chicago.
4. Primary Sarcoma of the Esophagus and Stomach, William Travis Howard, Cleveland, Ohio.
5. Demonstration of the Van Gehuchten-Nelis Histologic Resection for Hydrophobia and Remarks on Hydrophobia in Ohio, A. P. Ohlmacher, Gallipolis, Ohio.
6. A Case of Complete Agenesia of the Central Visual System, Wm. G. Spiller, Philadelphia.
7. Carcinoma of the Lung, E. R. Le Count, Chicago.
8. The Influence of Structure and Locality on Pathological Processes, J. S. Foote, Omaha, Neb.

Wednesday, June 5—9 A. M.

Symposiuum on the Role of Certain of the Non-Granular and Granular Somatic Cells in Infection.

9. Technics. The Origin, Fate and Significance of these Morphologic Elements, H. F. Harris, Atlanta.
10. The Plasma Cells in Acute and Chronic Infection, W. T. Councilman, Boston.
11. The Endothelial Cells in Acute and Chronic Infection, E. R. Le Count, Chicago.
12. The Esinophilic Cells in Acute and Chronic Infection, Maximilian Herzog, Chicago.
13. The Mast Cells in Acute and Chronic Infection, Herbert U. Williams, Buffalo, N. Y. (By Invitation).
14. Isolation of Bacillus Typhosus from Unusual and Interesting Localizations, M. Daniel, Minneapolis.
15. Notes on the Bacteriology and Morbid Histology of Cerebro-spinal Meningitis, L. B. Wilson, Minneapolis.

Wednesday, June 5—2 P. M.

16. Report of Cultures from Two Cases of Dysentry, F. F. Westbrook, Minneapolis.
17. A Study of a Fetal Stomach with Special Reference to the Origin of Acid-secreting Cells, W. A. Evans and William Becker, Chicago.
18. Some Studies of Venoms and Antivenin, Joseph McFarland, Philadelphia.
19. Some Unusual Adeno-carcinomas of the Breast, J. Clark Stewart, Minneapolis.
20. An Undescribed Abnormality of the Bile Ducts, J. Clark Stewart, Minneapolis.
21. Reports of a Case of Primary Carcinoma of the Appendix, and a Case of Lympho-Sarcoma of the Intestine, with a Discussion of the Etiology of the Latter, S. M. White, Minneapolis.
22. On the Outgrowth of Epithelium, Leo Loeb, Chicago.
23. On the Etiology of Carcinoma, G. Fütterer, Chmicago.

Thursday, June 6—9 A. M.

24. On the Nature and Significance of Granular Degeneration of Red Corpuscles, Alfred Stengel, C. Y. White, and William Pepper.
25. Study of an Epidemic among Guinea Pigs in the Laboratory, V. C. Vaughan, Ann Arbor, for Louis M. Gelston.
26. The Influence of Boric Acid and Borax on Milk Bacteria, V. C. Vaughan, Ann Arbor, for William H. Veenboor.
27. The Influence of Formaldehyde on Milk Bacteria, V. C. Vaughan, Ann Arbor, for Arthur J. Hood.
28. Streptothrix Infections of Human Lung; a General Consideration of the Subject, Simon Flexner, Philadelphia.

## MEETING OF THE AMERICAN MEDICAL EDITORS' ASSOCIATION.

The annual business meeting of the American Medical Editors' Association will convene in the library rooms of the Ramsey County Medical Society, Lowry Arcade building, St. Paul, at 2:30 P. M., Monday, June 3d. The Lowry Arcade building is situated in St. Peter street, between Fourth and Fifth. The session will open promptly at the above hour, and all members are urged to be present at that time.

This association, as implied in the name, consists of medical editors of the United States. Meetings are held annually, coincident with the American Medical Association. The aims of the association are the advancement of medical journalism, the foundation of an ethical press in medicine, and the improvement of the medical profession in general. The membership includes the leading medical writers and editors of the country.

The meeting this year will be a most successful one, both from the point of presentation of valuable papers and the energetic work of the members of the association which will be made manifest at the meeting. The preliminary program is calculated to interest and benefit every medical editor. A partial list of papers includes:

President's Address, Dr. Alex. J. Stone, St. Paul.

Relative Value of Medical Advertising, by Dr. John Punton, of Kansas City, Missouri.

Paper, subject unannounced, by Dr. John V. Shoemaker, of Philadelphia.

Improvements in Medical Education, by Dudley S. Reynolds, of Louisville.

Some Thoughts on the Ethics of Medical Journalism, by Burnside Foster, of St. Paul.

Editorial Corps and Medical Journalism, by Dr. George F. Butler, of Alma, Michigan.

Relation of the Medical Editor to Original Articles, by Harold Moyer, of Chicago; and

Paper, subject unannounced, by Dr. George H. Simmons, of Chicago.

The annual dinner of the association will be held at 9 P. M., June 3d. reservation of plates should be made at once. Membership applications and titles of additional papers can be sent to Alexander J. Stone, Lowry Arcade, St. Paul, president, or O. F. Ball, Century building, St. Louis, secretary.

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## AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

Flint, Mich., April 26, 1901.

To Members:

As heretofore announced the fifty-seventh annual meeting of the American Medico-Psychological Association will be held at Hotel Pfister, Milwaukee, June 11, 12, 13 and 14, 1901.

The hotel is convenient and attractive. It has large, airy, and well furnished rooms, a pleasant restaurant, fine banqueting hall, and spacious auditorium. Members may be accommodated on the European or American plan, as desired, and reduction from the regular hotel rates has been secured. It is suggested that members planning to attend the meeting, engage rooms at an early date in advance.

The annual address will be delivered by Warren P. Lombard, Professor of Physiology in the University of Michigan. The subject will be Re-enforcement and Inhibition of Nervous Processes.

It is doubtless unnecessary to call the attention of members to the meeting of the American Medical Association which occurs at St. Paul, June 4th to 7th, 1901. The Committee of Arrangements of the American Medico-Phychological Asciation, having in charge the matter of transportation, has presented to the railways interested, the desirability of an arrangement which will permit a stop-over at Milwaukee on the return trip from St. Paul by those who first attend the meeting of the American Medical Association at that point and who desire to attend the Milwaukee meeting later. The result of these negotiations will be announced in due time.

The Committee of Arrangements has in view a variety of pleasant entertainment for members and their ladies in which are included a trolley ride about the city, a reception at the hotel, and a visit to the Deutscher Club.

The following papers are promised:

Folk Lore of Insanity, Henry M. Hurd, M.D., Baltimore, Md.

The Care of Delirium Tremens and Allied Conditions, Henry C. Baldwin, M.D., Boston.

Operative Work among the Insane, Anne Burnet, M.D., Clarinda, Ia.

A Recent Kansas Statute, B. D. Eastman, M.D., Topeka, Kans.

Abnormal Brain Development, Henry C. Eyman, M.D., Massillon, O.

Psychic Treatment, Edward C. Runge, M.D., St. Louis, Mo.

Limitations of Surgical Work in Hospitals for the Insane, William J. Mayo, M.D., Rochester, Minn.

General Hospital Treatment of Certain Cases of Acute Insanity, D. R. Brower, M.D., Chicago.

Electricity in the Treatment of Insanity, W. M. Knowlton, M.D., Brookline, Mass.

Practical Application of Laboratory Methods in Clinical Psychiatry, James D. Munson, M.D., Traverse City, Mich.

Episodes in Gynæcological Practice Among the Insane, W. P. Manton, M. D., Detroit, Mich.

On the Natural History of Insanity, H. A. Tomlinson, M.D., St. Peter, Minn.

Normal and Abnormal, Rational and Irrational Delusion, C. H. Hughes, M. D., St. Louis, Mo.

The Pathology of Insanity, Louis C. Pettit, M.D., Ward's Island, N. Y.

Notes on the Hebrew Insane, Frank G. Hyde, M.D., Ward's Island, N. Y.

Traumatic Encephalitis; Report of a Case, Henry P. Frost, M.D., Buffalo, N. Y.

Diphtheria in an Institution for the Insane, William Austin Macy, M. D., Willard, N.Y.

A Review of Pathological Work, G. H. Hill, M.D., and A. M. Barrett, M.D., Independence, Ia.

Hydrotherapy in its Relation to Insanity, W. A. Gordon, M.D., Winnebago, Wis.

Gastrotomy for the Removal of Foreign Bodies, Geo. F. Inch, M.D., Kalamazoo, Mich.

Papers of which the subjects cannot be announced at the present time will be read by:

Dr. Arthur MacGugan of Kalamazoo, Mich.; Dr. Dwight S. Moore of Jamestown, N. D.; Dr. Frank C. Hoyt of Mt. Pleasant Ia.; Dr. Daniel Clark of Toronto, Ont.

The Secretary will be much indebted for promises of additional papers. Will members kindly send him titles at once.

Very respectfully,
C. B. Burr, Secretary.

## HENNEPIN COUNTY MEDICAL SOCIETY.

At the last meeting of the Hennepin County Medical society, May 6, 1901, the following nominations of officers to be voted for at the next meeting were made:

President—Dr. H. L. Staples.
Vice-President—Dr. F. C. Todd.
Secretary—Dr. A. E. Benjamin.
Treasurer—Dr. W. H. Condit.
Librarian—Dr. G. D. Head.

The Executive committee and the Board of Censors of the past year were renominated.

The annual meeting is postponed two weeks, and will be held at the new quarters in Andrus building, June 17.

According to the Aberdeen News, Dr. H. E. McNutt of that city amputated both hands and both feet from an unfortunate by the name of Charles Wood, who froze the members late in the winter. The doctor performed the amputations without the aid of another surgeon, and it is claimed that medical records show but one previous case where four similar operations were performed by a single surgeon at one time.

Carl Krueger, Chicago, the third patient in surgical history to survive an operation for the removal of the stomach, ate his dinner with his family at 970 Winnemack avenue, April 15, for the first time since he left home to have his stomach cut out at the Illinois Medical college a month before. After a generous meal of chicken soup, malted milk, mashed potatoes and coffee, Krueger said that he felt perfectly well, barring a touch of rheumatism in the left leg. In a month he hopes to recover his strength sufficiently to go back to work at his trade as a florist. For years Krueger suffered from cancer of the stomach. The malignant growth had spread to such an extent that he was but a short time ahead of death. Dr. B. D. Eads, professor of surgery at the Illinois college, told the sufferer that his only chance lay in having his stomach removed, and that this chance was none too great but was worth taking. According to the surgeons there is no reason why Kruger should not live to old age, if he sticks to "spoon-victuals."

## BOOK NOTICES.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A practical Exposition of the Methods, other than Drug-Giving, useful in the Treatment of the Sick and in the Prevention of Disease. By American, English, French and Germon Authors, and edited by Solomon Solis Cohen, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Policlinic; Lecturer on Clinical Medicine in Jefferson Medical College, etc., In Eleven Handsome Octavo Volumes, with many Illustrations, Maps, and Full-page Plates. Price for the complete set, Cloth Binding, $22.00. P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia.

Volume I. is on electrotherapy by George W. Jacoby, M.D., consulting neurologist to the German hospital, New York City; to the Infirmary for women and Children; and to the Craig Colony for Epileptics. Dr. Jacoby will complete the subject in two books. Book one deals with electrophysics, with a full description of the apparatus required for the therapeutic and diagnostic use of electricity, and contains 163 illustrations.

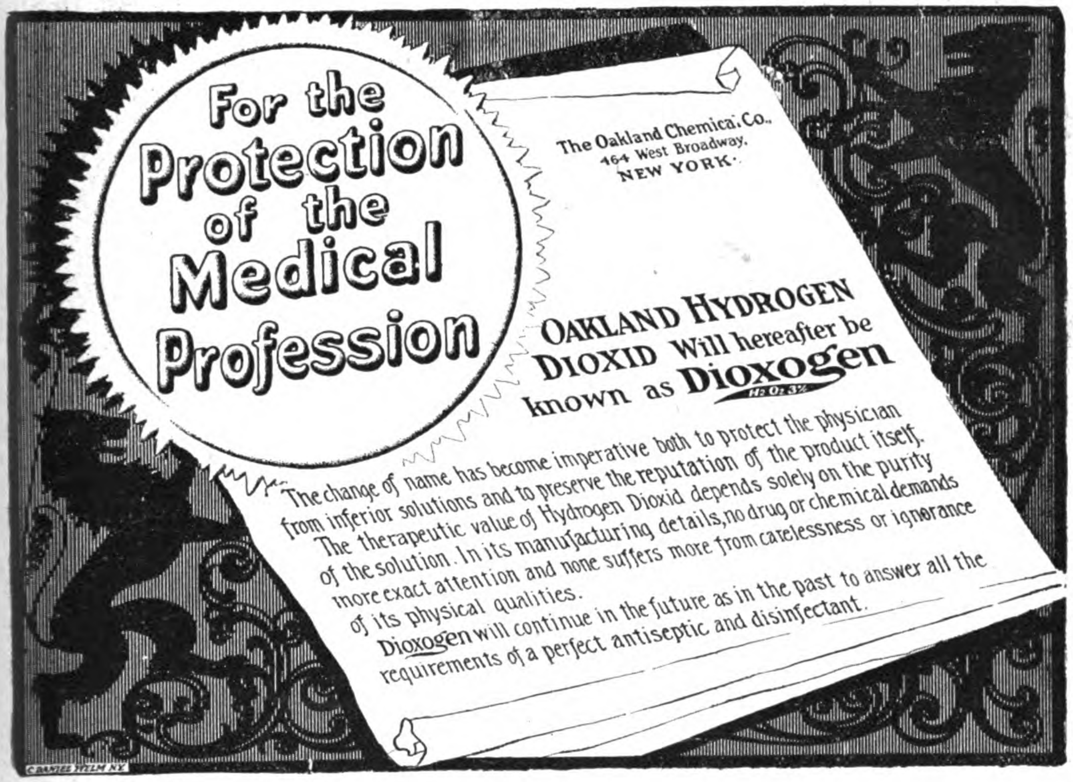
This is a good beginning of a great work, and the thorough study and explanations of the subject promise an interesting and valuable collection of information for its readers. Electrical treatment has been given too much in the manner of "shooting into the tops of the trees that possibly something might fall," for its reputation as a remedy for many forms of disease. If the directions given in this book are strictly followed, the results will hardly fail of success. The remarks concerning the X-rays are especially minute, and the production of skiagraphs satisfactory.

A TEXT-BOOK OF GYNECOLOGY. Edited by Charles A. L. Reed, A.M., M.D., President of the American Medical Association (1900-1901); Gynecologist and Clinical Lecturer on Surgical Diseases of Women at the Cincinnati Hospital; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the British Gynecological Society; Corresponding Member of the National Academy of Medicine of Peru, etc. Illustrated by R. J. Hopkins. New York: D. Appleton and Company. 1901.

In the compilation of the above work, the following three special objects were held in view: (1) The formation of a text-book which shall serve as a working manual for practitioners and students; (2) The co-operation of the various departments of medical science in their synthetic relation to gynecology; (3) The specific recognition of the work of investigators and operators in gynecology and correlated departments.

The first object was attained by assigning topics to a large number of writers, and choosing those of reputation. In this way the author has placed before the medical profession a book that is strictly up to date. The second object was not so easy to accomplish but through his strenuous efforts, the editor was able to base his matter upon very choice material from the very large number of papers which were prepared by specialists, at the same time arranging it in a consecutive, systematic and homogeneous manner. The third object was gained by asking authors to freely express their individual views.

The book is profusely illustrated.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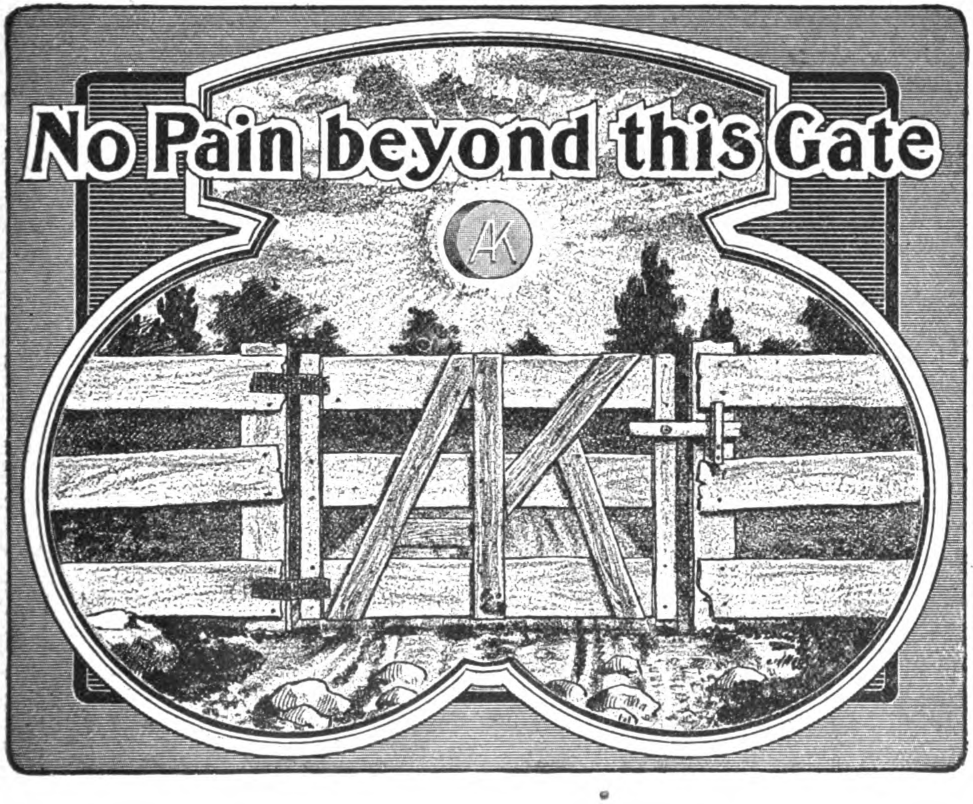
No Pain beyond this Gate
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# CLINICAL EXPERIENCE WITH ADRENALIN.

By Emil Mayer, M. D.,
Surgeon, New York Eye and Ear Infirmary, Throat Department; Fellow American Laryngological Association, and of the New York Academy of Medicine, New York.

(Abstract from original paper, in the Philadelphia Medical Journal, April 27, 1901.)

The aqueous extract of suprarenal gland is perhaps the best culture medium known. Its instability, the involved method of preparation, its unsightliness, and the inexactitude of its various strengths tend to make us welcome a preparation that is exact, stable, and above all, clean. Dr. Jokichi Takamine under took the task of isolating the active principle of the suprarenal gland. He obtained a substance in stable and pure crystalline form, which raises the blood pressure, and which he named "Adrenalin."

The author has used solutions of Anrenalin Chloride, 1 to 1,000, 1 to 5,000, and 1 to 10,000; his cases were all rhinological. Blanching of tissues followed the application of the strongest of these solutions in a few seconds, and waş very thorough. In no instance was there any constitutional disturbance. He has employed no suprarenal extract since. for any purpose whatever.

The effect of the solutions was not altered by their change to a pink color: they were used for six weeks. Subsequently a small amount of chloretone was added to the fresh solutions and now there is but slight change of color and no floccules appear.

Thirty-five cases are reported in tabulated form, showing that the usual effect of the aqpeous extract of the suprarenal gland was obtained. A few operative cases bled freely, but in every instance the hemorrhage was promptly checked by a second application of Adrenalin. The Adrenalin was used not only as a hemostatic, but for the relief of nasal congestion, as a diagnostic aid, and for the continuous treatment of acute inflammatory affections of the accessory sinuses.

The author arrives at the following conclusions.

1. Adrenalin solutions supply every indication for which the aqueous extract has been used.
2. They are sterile.
3. They keep indefinitely.
4. Solutions, 1 :1,000 are strong enough for operative work; and 1 :5,000 and 1 :10,000 for local medication.
5. They may be used with safety.

In this connection it is interesting to note that E. Fletcher Ingals, M.D., of Chicago, also has had a very satisfactory experience with Adrenalin. In a paper entitled "Notes on Adrenalin and Adrenalin Chloride*," he reports that he experimented with solutions, varying from 1 to 1,000 to 1 to 10,000, of the Chloride of Adrenalin in distilled water or normal salt solution, and kept careful records until satisfied of its activity. In nine cases a very small quantity of a spray, of one part of Chloride of Adrenalin to 10,000 parts of water, was applied to the nasal cavities, with the effect of blanching the mucous membrane quickly, and in most cases causing contraction of the swollen tissues similar to that caused by cocaine. The first solution used was made with distilled water and caused smarting: normal salt solution was then used as the solvent with perfect satisfaction. The smarting may have been due to the presence of a small quantity of formalin in which the atomizer had been washed just before use.

Experiments were also made with insufflations of a dry powder consisting of 1.5% (75 parts) each of biborate of sodium and bicarbonate of sodium; 3% (150 parts) light carbonate of magnesium; one part of Adrenalin, to 5000 parts sugar of milk. This powder cleared the nasal cavities when obstructed by swelling of the turbinated bodies, and diminished the secretions decidedly. A case of daily epistaxis was relieved by sprays of a 1 to 10,000 solution. Another of conjunctival congestion from overwork was entirely relieved by the instillation of a similar solution. The author has had equally satisfactory results in cases of conjunctivitis; laryngitis. acute and

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*Journal of the American Medical Association, April 27, 1901.

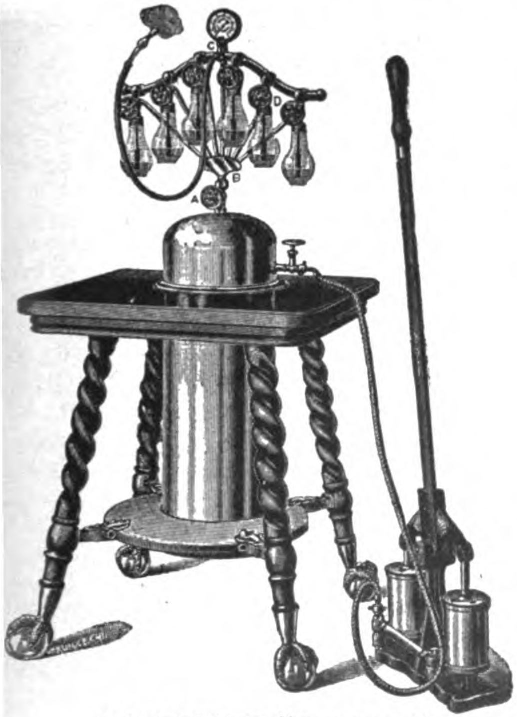
**Dear Doctor:**

**You are urgently requested to take advantage of the new department, "Questions and Answers," in the Medical Dial.**

**Yours very truly,**

**THE PUBLISHERS.**

## THE EUREKA NEBULIZER



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J. T. HAMILTON, M. D., Kansas City, Mo.
Professor of Clinical Optics and Refraction.

chronic; acute laryngitis with edema glottidis; acute coryza; chronic laryngotracheitis with acute exacerbation; and in preparation for operations upon the nose.

In conclusion, the following results are presented:—this remedy will be of great value in the treatment of acute inflammatory affections of the nasal cavities, either in sprays of 1 to 5,000, or in powders of 1 to 5,000 or 1 to 2,500, sugar of milk; In acute coryza and in hay fever, in epistaxis from various causes, in acute inflammation of the fauces, solutions of 1 to 1,000 will have good effects. In acute or subacute laryngitis, solution of 1 to 1,000, applied with moderate force, will give very great relief: it appears probable that vocalists may obtain sufficient relief from congested cords, for at least two or three hours, to obtain normal efficiency in the use of the voice.

In a paper read before the Chicago Laryngological and Climatological Association, W. E. Casselberry, M. D., called attention to the fact that Adrenalin Chloride solution is clear, colorless, odorless, sterile, and stable, if protected from heat, light and oxidation: it is non-irritating to mucous membranes. When applied locally it exerts identically the same vaso-constrictor influence as the aqueous adrenal extract. Sprayed into the nostrils in the strength of 1 to 10,000 it produces a visible change from turgidity to compactness of the turbinated tissues, and a decided pallor of the mucous surfaces. In the strength of 1 to 1,000, or even 1 to 5,000, it has the power to limit hemorrhage during operations and is an aid in the treatment of epistaxis. It may be substituted for cocaine in all cases in which an ischemic effect is desired, e.g., to facilitate inspection of the deeper recesses of the nasal cavities and to make them more accessible. Adrenalin has little or no cerebral stimulant effect, exciting no desire for more of the drug: hence there is little risk of habit-formation.

The author expresses the opinion that Adrenalin should afford relief in asthma associated with bronchitis and vaso-motor paralysis, although he would expect little benefit from its use in asthma characterized by bronchial spasm. It may be formed into an ointment with vaseline, or mixed with stearate of zinc, powdered starch, or sugar of milk to make powders for nasal or laryngeal insufflation. The bibliography is very comprehensive, covering the literature of the subject down to the present date.

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bound in handsome library style. The work of compilation, in which the editors have the co-operation of the officers of the leading medical organizations of the country, is actively in progress and the directory is due to appear about July 15. Prompt responses by physicians to requests for individual data for entries are solicited by the management as a matter of mutual advantage. It is believed this great work will be a contribution of distinct value to the entire profession and its appearance will be awaited with interest.

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## TREATMENT OF A CASE OF PULMONARY TUBERCULOSIS.

Duvol (American Gynecological and Obstetrical Journal, December, 1899) describes a typical case of pulmonary tuberculosis, with treatment employed and results obtained. The patient was a young married woman aged 34 years. Her family history was negative and her health had been good until about three years before when she contracted what seemed at the time an ordinary cold, since which she has suffered continually from a severe cough. When treatment was inaugurated she was much emaciated and very weak. She had night sweats, an average pulse of 94 per minute and a temperature of 99.5°. Her digestion was weak and her bowels constipated. Physical examination revealed dullness and rales in the right apex, with prolonged breathing. Her sputum was loaded with bacilli. The treatment employed consisted in the administration of syrup of the hypophosphites (McArthur), two drachms four times a day in a tablespoonful of whiskey. Codeine phosphate in one-fourth grain doses was given in tablet form whenever the cough required it. Within two weeks her appetite and digestion were considerably improved and she was much stronger. At the close of her fourth week of treatment she had gained four pounds in body weight and was able to seek further relief in another climate. The plan of medical treatment was continued substantially as begun and she made a splendid recovery.

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**Giving Time and Place of Meeting and Name of Secretary.**

American Medical Association.
June 4-7, St. Paul, Minn.
George H. Simmons, Chicago.

American Academy of Medicine.
June 1-3, St. Paul, Minn.
Charles McIntyre, Easton, Pa.

American Medical Editors' Association.
June 3, St. Paul, Minn.
O. T. Ball, St. Louis.

American Academy of Railway Surgeons.
September, Chicago.
T. B. Lacey, Council Bluffs, Ia.

American Neurological Association.
Boston.
G. M. Hammond, New York City.

American Ophthalmological Society.
July 17, New London.
S. B. St. John, Hartford, Conn.

American Proctological Association.
Oct. 22-26, Indianapolis.
C. O. Probst, Columbus, O.

American Public Health Association.
June 4-5, St. Paul, Minn.
W. M. Beach, Pittsburg.

Mississippi Valley Medical Association.
Sept. 10-12, Put-in-Bay.
H. E. Tuley, Louisville.

Obstetricians and Gynecologists, Am. Assn. of.
Sept. 17-19, Cleveland.
W. W. Potter, Buffalo.

Railway Surgeons, Internat. Association of.
June 10-12, Milwaukee.
L. J. Mitchell, Chicago.

Southern Surgical and Gynecological Association.
Nov. 12-14, Richmond, Va.
W. D. Haggard, Jr., Nashville.

Western Surgical and Gynecological Association.
Dec. 27-28, Chicago.
George H. Simmons, Chicago.

Colorado State Medical Society.
June 18, Denver.
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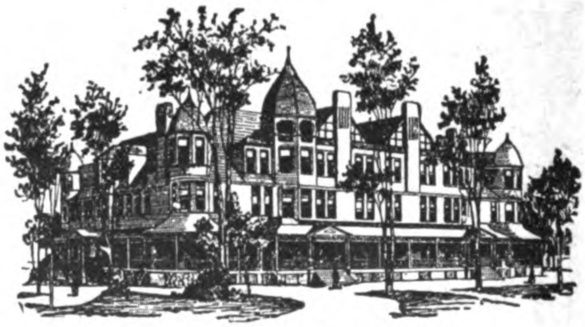

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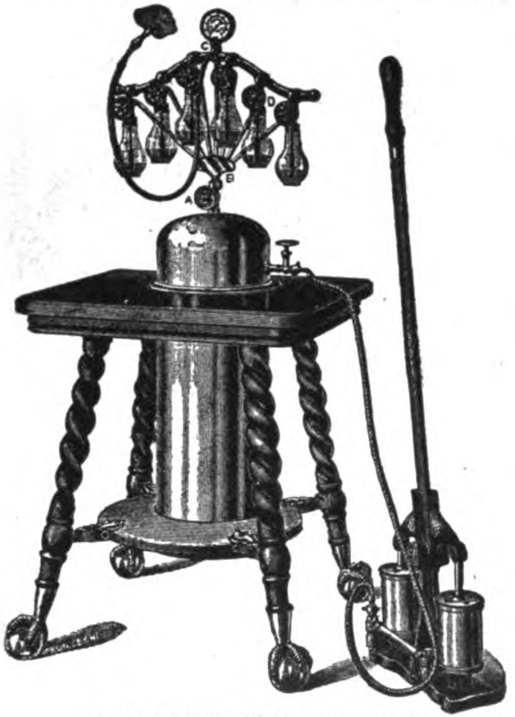

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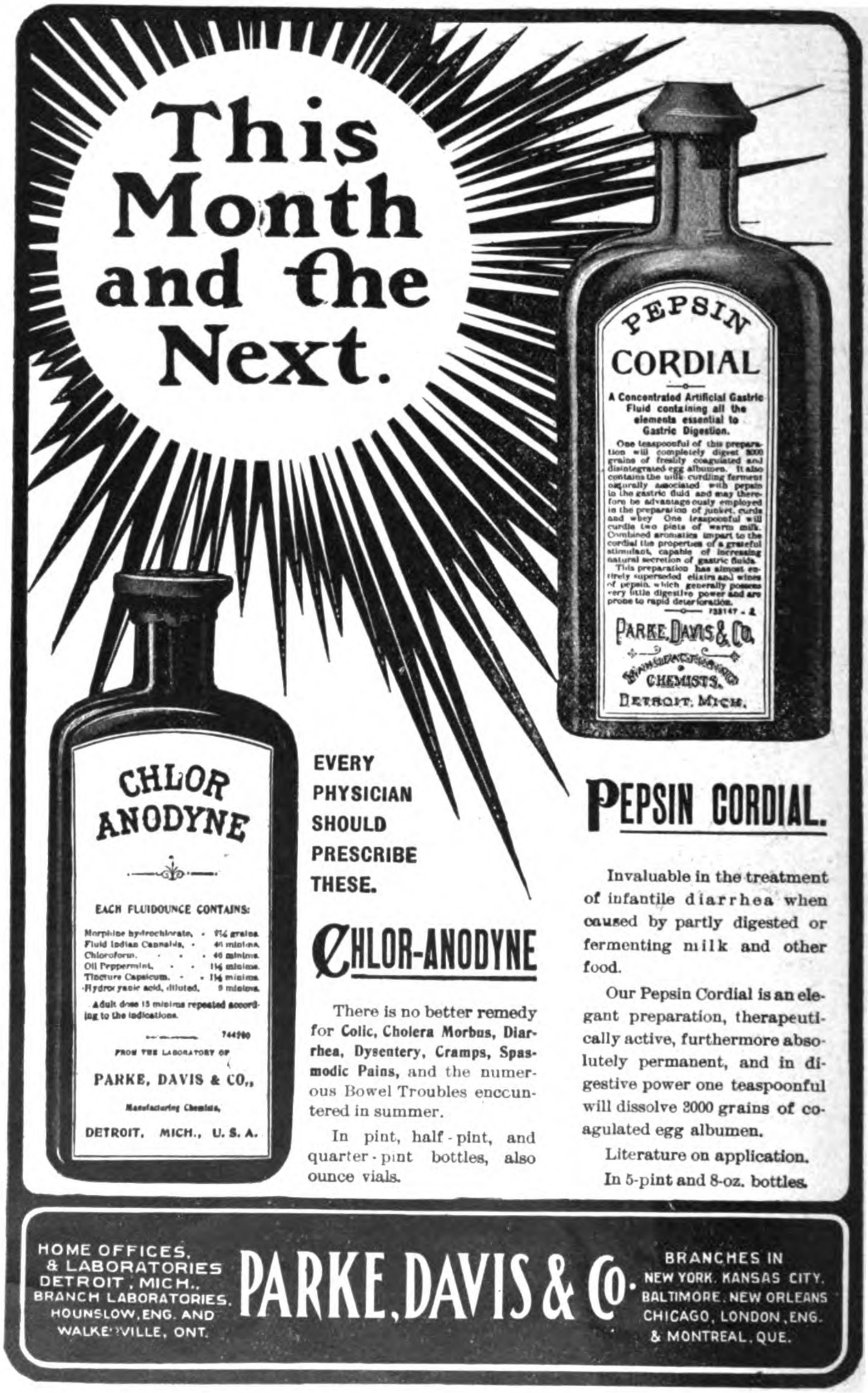
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# MEDICAL DIAL

A Monthly Record of Medicine and Surgery.

Vol. III. MINNEAPOLIS, JULY, 1901. No. 7

# ORIGINAL ARTICLES.

## EVENTS IN THE HISTORY OF AMERICAN SURGERY—A BRIEF REVIEW.

By Franklin Staples, M. D., Winona, Minn.

(In Two Parts.—Part 1.)

The closing of the past century had the effect to turn the thoughts of men to the past; to the observation of what has pertained to art and science in their different departments, as well as to other things. There is interest and advantage in studying the works of our predecessors. Records are made in the passing of events; values are best determined in their review. With this in mind, we may look to the outcome of a few major and minor events in the history of surgery in the century past.

First—The Advent of Anesthesia:—

The event which, as now seen, resulted in the most signal aid to operative surgery during the time specified, was the discovery of anesthesia, which occurred in this country shortly before the middle of the century. The facts concerning the how, the where, and the by whom, of this discovery are not our present concern. It is the thing itself and its results that we may observe. Beyond its beneficent effects in preventing human suffering are those of its aid in the advancement of operative surgery. Following the introduction of anesthetics to the operating room, and by their use, the province of both major and minor operations in surgery was greatly extended, the success of the same increased, and the risk of surgical procedures as greatly diminished. The whole technique of operations was modified and improved. Rapidity in operating was no longer an essential. Fine work in ophthalmic surgery, and nice dissections and repair work in the great cavities of the body were made possible and practicable. In such work, nerves and vessels necessary to the life of parts were now far less liable to injury, and surgical shock became practically unknown. It may be said further, that by this means the study of pathological conditions in the living body received a most important aid.

As now seen, the coming of anesthesia into the domain of clinical surgery marked the beginning of a most important epoch in the history of its progress.

Of Minor Improvements:—

The sum of small things makes the greater. We have at hand an old amputating case. Curved knives and other old style instruments speak of methods now gone by. The circular operation in amputations was in general use at a time within the memory of men still living. The clean flap operation for both large and small parts, and the close adjustment of incised surfaces were then to come. Union by granulation, so called, with suppuration, was then the rule, and harmful cicatricial tissue was a liable result. Modern aseptic means and methods were then in the future.

Extensions in Fractures and Dislocations:—

In a study of what at first might have been thought to be minor improvements, we find that acquired values have entitled many to higher rank; and, moreover, that an aggregation of minor parts may make a major whole.

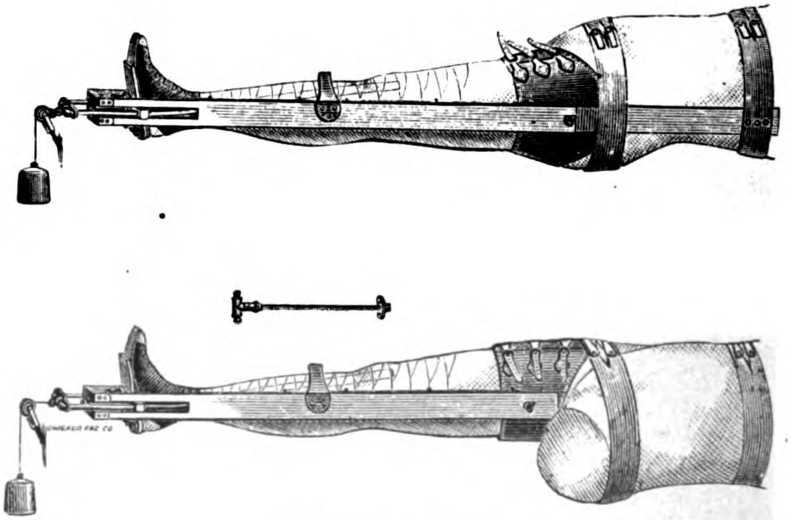
We may not go back to the time in ancient surgery, when, for dislocations of larger joints, the rack held the bound patient, and the windlass with the long lever and strong hands did the work of reducing by direct forcible extension. The so-called "Jarvis Adjuster" was a more modern invention, but did about the same thing as did the ancient rack, though perhaps in a little more elegant manner. The method of reduction by flexion of parts and relaxation of muscles belongs mainly to our own time.

The history of methods in the treatment of fractures has an interest in the fact of radical changes made in the past. A brief account of methods used for the fracture of the shaft of the femur may illustrate. A good authority on the subject, the late Professor Frank H. Hamilton, made three distinct periods in the history of the treatment of this fracture: First, that of the straight position treatment, which continued until about the middle of the eighteenth century; second, that of the flexed position—that of the use of the double inclined plane. This is made to continue about a hundred years. Third, that of the renaissance, the straight position again, the period of the present time.

Fractured Femur—Straight Position Treatment:—

The development of the present accepted method of treatment of fractured femur is not without its history. Many surgeons of to-day remember the method of thigh extension taught by the late Professor John T. Hodgen, of St. Louis. His was extension by suspension. The limb was supported in a semi-flexed position by a strong but light wire splint. A cord from the sides of the splint passed over a pully above to a weight below. The limb was drawn upward and forward, while the weight of the body afforded counter extension. The method of Dr. Hodgen proved a success, and was an object lesson in fracture treatment by extension.

For extension and support in case of fracture of the femur, the above cut shows the parts of a simple apparatus which in use meets the indications, perhaps, as well as any appliance may do. The description of the several parts of this apparatus, and an account of their coming into use, tells of their practical value and of their history, which of itself is not without interest.



THE EXTENSION SPLINT.

The long outside splint, extending from below the foot to the axilla, was formerly called Desault's splint or Liston's splint. Because of improvements made early in the century by the late Dr. Physick of Philadelphia, it was known in this country as Physick's splint. The name of Dr. William E. Horner, late of Philadelphia, was mentioned in connection with the use of the shorter, the inside, splint. To Dr. Joseph Hartshorn, also of Philadelphia, is accredited the cross-bar connecting the lower ends of the splints, the extension screw, the upper cross-bar sliding in slots in the side splints, and the foot piece attached to the latter.

The first use of adhesive strips for the extension attachment was accredited to several physicians; Buck of New York, Crosby of New Hampshire, Wallace of Philadelphia, and others.

The use of India rubber in the extension cords and as a part of the perineal band was assigned to Dr. Buck as the originator; but Dr. Buck, himself, gave much of the credit to Dr. H. G. Davis of New York.

The credit for the first use of the weight and pully in extension was given by Dr. Hamilton to Dr. L. C. Dugas of Augusta, Georgia.

The plan of elevating the foot of the bed, that the weight of the body might serve for counter extension, was, according to the record, first proposed by Dr. James L. Van Ingen of Schenectady, New York.

In 1876 an improvement was made on the fracture apparatus, by substituting the thigh socket for the perineal band. The latter, in many instances, had proved to be a source of irritation and much discomfort. The form of this socket and its attachment to both splint bars are shown in the illustration.

This much for a description of the simple and now common apparatus for use in treatment of the fractured femur. The history of its development, as here given in part, affords sufficient reason for designating the surgical treatment done by this means as the "American Method," as has been done. The apparatus can be made by the surgeon himself, or by an ordinary mechanic under his direction. It should have its place in the ready armament of every practitioner.

A word concerning results: Surgeons have disagreed on the question of what should be expected with the best available treatment of fractures of the femur. A controversy which occurred at the meeting of the American Medical Association in 1877 will illustrate. Here is history again. It was in the surgical section of the Association that the following resolution was introduced and passed almost unanimously:

"Resolved, That it is the opinion of this Section, that shortening in cases of fracture of long bones is the rule in practice, regardless of any of the plans of treatment now in use."

The passage of this resolution was vigorously opposed by a distinguished New York surgeon, who made orthopedics his specialty. The claim in opposition was, that absolute freedom from shortening could be made the rule rather than the exception. In reply to this claim we have the words of Dr. Frank Hamilton, given in his work on "Fractures and Dislocations," as follows: "It is never a pleasant duty," he said, "to call in question the accuracy of an author's statement as to what he has himself alone seen, and experienced. The circumstances which would justify such an expression of skepticism, when the witnesses, as in this case, are presumed to be intelligent and honest men, must be extraordinary. Such, however, I conceive to be the circumstances in this instance. * * * Our lack of faith in their testimony is only a necessary result of our experience, and of the experience of the vast majority of practical surgeons as opposed to theirs."

(To be continued.)

# THE SUCCESSFUL TREATMENT OF AURAL PAIN.

By H. A. Beaudoux, M. D., Fargo, N. D.

The successful treatment and prompt relief of aural pain is a matter of great importance not only to otologists, but to all general practitioners as well, from the fact that the general practitioner is the one who is most often called to attend such cases, and generally in the middle of the night, since it is the time when the ordinary earache begins. Because of the frequency of the diseased condition, and the distressing symptoms which accompany it, as well as the prompt relief which we are expected to give, we should ever be ready to compass during our first examination the several causes which produce it.

The causes of aural pain are many. They may arise in any portion of the auditory apparatus. Eczema, furuncles, foreign bodies, cerumen, exposure to cold winds, adenoids, total inflammation, strictures of the eustachian canal, clot following epistaxis, which may accidentally be blown into the eustachian tube, tonsilitis, coryza, influenza, hypertrophic and atrophic rhinitis, tuberculosis of the upper respiratory tract, cementitis, pure otalgia or neuralgia, chronic middle ear, dental caries, alveolar periostitis and the many other forms of pharyngeal infection to which children especially are prone during the course of the exanthemata. All these should receive our closest attention and indicate an intelligent treatment.

The administration of heat, anodynes, or repeated application of black wash, prescribed hit or miss as a mode of routine treatment can be of no avail unless a careful examination of the nose, throat, and mouth and ear proper be scrutinizingly made, as already suggested, for the causes.

The characteristic appearances of eczema are present in the auditory meatus as elsewhere on the body. The skin is swollen, reddened and probably covered by a reddish scab which may extend over the membrana tympana or a part of it. The pain experienced from this condition is often quite severe and the accompanying burning and itching alone is often enough to prevent sleep for several nights. My treatment of this condition is, first cleaning of the parts with a 10 per cent carbolic acid solution, then drying with absorbent cotton. I then apply the 5 per cent ointment of ichthyol in vaseline or of the yellow oxide of mercury. After a few hours the relief experienced has in my hands been very grateful. Of course, on account of the inherent tendencies which the disease has to persist, the application must be repeated and continued along with the constitutional treatment.

Furuncles occur as localized or diffused swellings. Both of these may not, for some days during the early stages, be manifested in any definite degree, and, for this reason, will be overlooked during a hurried examination. Both varieties are accompanied by intense pain, especially in the front of the tragus. A circumscribed furuncle can easily be located by a careful search with a blunt probe, as the patient will usually scream when you touch the tenderest point, for it is exceedingly sensitive to the slightest touch. The only treatment in my hands which is of any avail and which gives prompt relief is a free incision with the furuncle knife or a curved tenotome. In the early stages, free bleeding may be the only result; later, if pus has formed, I am in the habit of using a curette and mopping the cavity with an antiseptic of some kind. The pain generally subsides in a few hours, and, unless there is formation of another furuncle, there is no subsequent return. As it is well known that these boils occur usually with a debilitated condition, anaemia, derangement of menstruation, etc., the proper treatment of these underlying conditions should not be neglected, not only for the cure of the same, but, also, as a prophylactic measure. In the more diffused variety the application of the red oxide of mercury ointment, continued hot water injections and applications containing half a dram of laudanum to the ounce give great relief. As soon as pus is suspected, a free incision extending the whole length of the external meatus should be made, to prevent it burrowing internally, as occurred in one of my cases, and free drainage established.

Foreign bodies, when detected, indicate by their nature the mode of proceeding for the removal of the same. Beads, shoe-buttons, beans, bed bugs, fleas, maggots, cerumen, should require great care during the manipulation to prevent injury to the parts beyond. When a foreign body has been in for several days, and the tissues are badly inflamed about and in front, the use of warm water irrigation, sedative ointments, are more grateful and produce better ultimate results than forceful manipulation, which generally remains fruitless. I have seen in two cases not only an injury to the drum but also a fracture of the malleus followed in one case by an almost complete stricture of the external meatus, all apparently due to undue violence during extraction of the foreign body.

The ordinary and most acute earache that we have to deal with, and for which the gratitude of our patients is greatest when we bring prompt relief, is that caused by inflammatory affections of the tympanum. In children, it is generally dependent upon myringitis or a catarrhal inflammation of the middle ear or upon an acute eustachian salpingitis. It is in these cases that a careful investigation first of the drum membrane, to ascertain whether or not it is congested in toto or only in the upper segment along Shrapnell's membrane, whether retraction has taken place or bulging be present; second, of the nose, to ascertain whether or not there is a hyperaemia present or an atrophic condition; third, the pharynx and oro pharynx, for the investigation of the tonsils, noticing whether or not they impinge upon the velum and make pressure upon the mouth of the eustachian tube above or whether acute inflammation is present; fourth, and, perhaps the most important as well as the least accessible to the inexperienced laryngologist, is the post nasal space.

In children I make no attempt with the head mirror nor hand mirror to make an examination. After coaxing the child and gaining his confidence, I explore the parts with the aid of the forefinger and gain thereby the knowledge that I could not usually obtain with this class of patients. Like the gynecologist, the finger can be so educated as to ascertain to a certainty the condition of the soft palate, whether or not the tonsils make pressure upon the eustachian tube, whether the mouth of the latter is swollen or not, whether posterior hypertrophies of the turbinates are present, whether adenoids exist and where located, and, finally, the condition of the mucous membrane could easily be mistaken for the former condition.

The treatment of the nonsurgical cases in the early stages is most satisfactory. After using a lukewarm alkaline nose wash by means of a Burmingham or a Century douche, I instill a few drops of a 5 per cent solution of cocaine into each nostril, allowing it to trickle back with the patient lying first on the right and then on the left side. After a few minutes I then spray the nose with a 1 to 5000 solution of adrenalin and then repeat the nasal douche if unsatisfactory results were obtained, and finally make an attempt at Politzerization, which will usually open the eustachian tube and immediately relieve the pain. I then leave my patient a solution of the adrenalin with instructions to use it cautiously every hour for the first twenty-four hours and to follow it by a spray of alboline and camphor, 2 to 5 grains to the ounce.

Cocaine should not be used repeatedly, as in most cases after the first few instillations it will increase rather than allay the hyperaemia. For the want of adrenalin, however, I should either use the cocaine followed by a solution of antipyrin, 10 grains to the ounce or confine myself entirely to the albolin spray.

Some sedative or soothing gargle is always in order for the pharyngeal condition and the internal treatment, as well, but it is not the intention of this paper to deal with this part of the therapeusis.

The treatment of tonsilitis and other conditions mentioned are too well known for me to dwell on. I want to emphasize, however, the part and, in myringitis, the rest of the parts, and the packing of the external auditory canal with boric acid will, after the use of the hot douche, bring about a cure more promptly than any other means.

When the cause of salpingitis is due to pyogenic bacteria, we are facing perhaps one of the most dangerous and serious conditions of ear inflammations.

It is in these cases that we find the bulged and swollen membrane with all its landmarks obliterated, perhaps spotted here and there by hemorrhagic blebs and swollen external meatus at times with an almost closed lumen.

If perforation has not occurred, your treatment must then be energetic and prompt, for, not only is the condition a local one, but, also, one dangerous to life, and vigilance is imperative. I invariably perform paracentesis wherever the bulging seems most prominent, bearing in mind, however, the anatomical condition behind and the changes to which they may have been subjected through the inflammatory disturbance. The use of a 20 per cent solution of cocaine and a flow of hot bichloride solution precedes the incising, and is followed by a continuous stream of hot boric acid solution kept up for several hours, and repeated until the pain has entirely subsided. This has become with me a form of routine and most efficient treatment whenever circumstances allow me to use the same.

In mild cases the treatment recommended for the former class of cases, which I have named non-surgical, will be sufficient and should ordinarily be carried on in the severe cases, as the nose and throat always play an important part in these forms of inflammation.

These septic cases and all cases where the local treatment fails to bring about the desired effect promptly are the only ones in my mind which require the use of morphine or other sedatives.

Paracentesis should not be delayed when the eustachian tube cannot be opened and freed so as to establish drainage, and the probability of the latter is the only excuse for delay when the pain and high temperature continue. A differentiation should, however, be made between myringitis and middle ear trouble, as in the former condition this operation is seldom called for and establishes the possibility of complicating the condition by a purulent otitis media.

Under the most favorable conditions the severe cases generally run a course of from ten days to two weeks, but, as in all cases, the earache generally ceases as soon as free drainage is established at either end, and is followed by an uneventful recovery.

It is after this class of cases that mastoid and cerebral complications may take place, and personal attention as well as repeated dressings of the case can hardly be too frequent as a prophylactic treatment of the same. As soon as the eustachian salpingitis will have sufficiently abated to allow politzerization a gentle and steady air douche will greatly aid in relieving the tympanum of the accumulated septic material contained therein.

Chronic purulent otorrhoea brings us another class of cases where aural pain is often very severe and symptomatic of serious complications. Most often the periodical attacks are brought on by exposure, interference with drainage, such as caused by granulation, accumulated debris either from former treatments with powders or necrosed epithelium, periostitis, etc.

The treatment in these cases is often puzzling and yet should first be directed to the removal of all accumulations, not only in the external auditory meatus, but carried in the attic as far as possible by means of a bent probe carefully guarded by a small pledget of cotton and a stream of a warm antiseptic solution.

Granulations will call for an immediate surgical removal in most cases. The use of the hydrogen dioxide, 1 to 2, carbolic acid 1 to 50, are always grateful under all circumstances.

During the past year adrenalin used in as strong a solution as 1 to 1000 has assisted me in several instances in keeping up a freer drainage than I had been able to obtain by any other means and a prompt abatement of already prominent mastoid complications, and, at the same time, the cessation of the pain. Beyond this condition I do not intend to go, as the complications of mastoiditis are so many and so varied that too lengthy a discussion would be necessary to cover the field in all its different phases.

Another very common form of earache is due to alveolar periostitis, dental caries and its diagnosis must necessarily be by the exclusion of the aural causes and the suspecting conditions of the mouth. The treatment, of course, should be left to the dentist, but as a means of alleviating pain at the time of the physician's visit the applications of cocaine, oil of cloves, tincture of aconite, and other local anaesthetics will greatly relieve the suffering.

The neuralgias and otalgias are diagnosed in the same way and by the paroxysmal character of the suffering and probably by the history of neuralgia in other parts of the face. In this class of cases the treatment should be local and constitutional. Chloroform used on small flannel pads applied both in front and back of the auricle or sprayed in the external meatus is a valuable agent. Care should be taken not to blister the skin by avoiding applications longer than from one to two minutes at a time Ethylchloride sprayed in the same locality, to the bleaching point, has done more for me than the hot and dry compresses, but all may be tried alternately until the desired result is obtained. Oil of peppermint, though an old time remedy, when applied with a brush over the affected parts often proves to be a useful medicament. The external administration of quinine, antipyrin and the other standard neuralgia remedies will be in order, accompanied by the other hygienic measures.

To briefly recapitulate, you will undoubtedly recognize the facts that in the ordinary case accurate diagnosis, drainage through the eustachian tube or the tympanic membrane, evacuation of the tympanum by gentle Politzerization, rest of the parts as in myringitis, and prompt removal of the cause and attention to the nose and throat will compose, early in the cases of aural pain, the first steps which will make your patient comfortable and grateful to you. I have said little in regard to the insufflation of powders because, unless used as a dusting, they generally prevent drainage and therefore do harm when the case cannot be dressed several times a day and watched by an intelligent eye.

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The medical board of Arizona is up in arms against the exportation of consumptives from other states to that territory. Commenting on the board's action calling upon the several municipalities to aid it in protecting the people from contagion, and urging that public cuspidors be provided, and that all rooms previously occupied by consumptives be fumigated, the Clifton Copper Era says: "Arizona's reputation as a health resort may be her own undoing in time, as every town of any importance is being crowded with consumptives, many of them in the last stages of the disease, and it is high time that the most stringent measures should be taken in behalf of the citizens who make their homes here. It is not right that our entire population should at all times and places be subject to this contagion. However, it is a national question, or should be, as more people die from consumption than from any other one disease. The government should take hold of this matter just the same as it does in cases of yellow fever or cholera. Large government hospitals should be established in the large forest reserves now set aside throughout the Rocky mountain regions, where these unfortunates could have the very best of care, and if health could not be restored, they would at least be prevented from spreading the contagion. It is a duty which the government owes, not only to the unfortunate victims themselves, but to the general public, that all such cases receive early and efficient attention. This one disease carries away more citizens every year than are removed by yellow fever in one hundred years, yet the government spends millions annually to prevent the spread of "Yellow Jack," but not one penny to stamp out consumption, which is spreading with increased rapidity year by year. There should be a government board of health, with a cabinet officer at its head, with ample power and means to prevent as far as possible the spread of this dreadful contagion. In the meantime the Medical Board of Arizona deserves the encouragement of the people for taking the first step in this important matter. Arizona should not be made the hospital, nor the cemetery, for the consumptives of the United States."

# *THE SCIENCE AND ART OF SURGERY; ITS PROGRESS DURING THE NINETEENTH CENTURY AND ITS PROSPECTS FOR THE TWENTIETH.

By R. W. Garrett, M.D.

Scientific addresses have of late been largely reminiscent in character. At the close of one century and the opening of another it is natural that we should mark time. count our gains and losses, seek to determine our present position, and cast a glance at the road already traversed, and at the path which opens in front.

Has medicine, one of the oldest of the arts and one of the youngest of the sciences, made solid progress during the century; progress commensurate with the notable advances in physical science, in industrial development, and in imperial expansion which have rendered this epoch illustrous? Has our profession grown in scientific precision, in practical utility, in efficiency, and in repute? Has it developed new resources and lopped off those decayed or outworn?

No nation can be truly great if unmindful of the sanitary conditions of its citizens. Civilization and the arts of domestic life march hand in hand, and as is the one. so necessarily must be the other, so indissolubly are they interwoven and bound together.

To answer these questions one has only to place himself in the position of the practitioner of a hundred years ago. We might, for example, imagine a professor called upon in the year 1801 to give an address on the progress of medicine. He would probably congratulate his hearers on the progress of the science and art since the days of Harvey and Sydenham. He would refer in the most kindly terms to the life and work of John Hunter, and to the light thrown upon surgery and pathology by his powerful and penetrating intellect. He would recount the rise and progress of the great Edinburgh School of Medicine, and tell of Cullen, of the Munros and the Gregorys. He would probably refer with becoming reserve and caution, and perhaps with some sarcasm, to the startling assertion of a country practitioner—one Edward Jenner by name—that he had discovered a cure for the greatest scourge of the age—small-pox. But granted that this eminent lecturer was endowed with the most vivid imagination, and permitted his mind to soar in the highest flights of theory and speculation, he could have related but a fractional part of the triumphs the historian of medicine is called upon to record to-day as the outcome of the progress of the past century, and more particularly the latter half. It may be likened to the Renaissance in the age of Augustus, or in the "spacious times of great Elizabeth." Virgil, the elect poet of Augustan Rome, contains an excellent text for a discourse in its praise:—

Redeunt saturnia regna;
Fam nova progenies cælo demittitur alto.

While our imaginary lecturer was relating with befitting pride the advances of his time, were he given a glimpse of the present golden age, and of the resources of to-day, he either would have been confounded with surprise or consumed with envy.

He knew nothing of chloroform or ether. he never heard of antiseptic surgery, he would expect nearly every wound, including those made by the surgeon, to heal by suppuration. and would express his approval of "healthy" and "true and laudable pus." If a wound healed by primary union he would exhibit it as something out of the common. a sort of freak of nature. He did not know typhus from typhoid fever, nor scarlet fever from diphtheria. He had no stethoscope, and never heard of auscultation. He knew of opium and quinine but never heard of the blessings of the hypodermic syringe. He never saw a lithotrite. He never counted the corpuscles in the blood, or inspected a skiagraph of the bones of his hand or of the vertebral column.

When reviewing the medical literature of the past one is attracted by the story related that when Boerhave, the most accomplished and celebrated physician of the eighteenth century, died, he left behind him an elegant volume, the title

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*Address delivered at the afternoon services in Convocation Hall, Queen's College, March 24th, 1901.

page of which declared that it contained all the secrets of medicine. On opening the volume every page except one was blank, and on that was written his legacy to suffering humanity. It was, in affect, to tranquilize the nervous system, to equalize the circulation and regulate the excretory organs. This summed up in crystallized form, not inaptly or unjustly, the really scientific acquirements of the medical art of the eighteenth century.

Wise practitioners like Boerhave, Sydenham, Morgagni and a few others were content to live within these modest limits, but the vast majority blindly followed the past, and bled and dosed by the book, or adopted some strange theory of planetary influence, signatures, animal spirits or occult force.

In making these statements it must not be forgotten that there had been real progress in many departments of medical science. Harvey had discovered the ciruclation of the blood; Haller had discovered the fact of muscular irritability and its connection with the nerves; Albinus had introduced exactness, as far as the means and instruments accessible at that time would permit, into naatomical investigation. Morgagni had founded the science of pathology which has since rendered such magnificent results. Astruc had announced the reflex phenomena of the nervous system; Boerhave, Sydenham, Mead, Hoffman and Stahl had rendered good service to practical medicine; Franklin and others had brought electricity, magnetism and galvanism into the domains of science, though their relations to medicine and physiology were not then recognized; and chemistry had entered upon a career of investigation which it has since followed with extraordinary success. But all these discoveries were in the form of isolated facts, more like islands surrounded by an unknown ocean, than parts of a continent connected with each other and forming a portion of a grand and systematic whole. In spite of these achievements however, it must be acknowledged that theory, empiricism, and authority ruled the medical world at the close of the eighteenth and beginning of the nineteenth century.

It was evident that if medical science was to advance, some new element or force must be introduced. This new element appeared in the form of John Hunter of England, and Bichat of France. These great minds, slaves to no theory, emancipated from authority, and dissatisfied with the results of empiricism, busied themselves with the accumulation of facts whose value they scarcely recognized, but which the future was only too glad to use and appreciate, and which have justly entitled them to be called the founders of modern physiology and pathology. Hunter and Bichat represent the turning point in medicine from idealism, speculation, and theory, to accuracy and close observation. From that time to this the progress of medicine in all its branches has been of the most gratifying character.

Although it is true, as Tennyson says, that "Science moves but slowly, slowly creeping on from point to point," yet as we look back upon the past one hundred years we find that its march has been one of exraordinary rapidity. During this period more of nature's great resources have been discovered, and more of her secrets mined out, than ever before. A thousand doubtful suggestions have ripened into facts, medicine has been enfranchised from superstition, quasi-charlatanisms, bald empiricism and speculation, and has developed into a symmetrical science, studied by the same methods and the same appliances as they are, and like them has been planted upon the solid basis of fact and demonstration.

Pathological anatomy, through the early labors of Morgani and Baillie, and later through the researches of Rokitansky, Cruveilheir, Virchow, Recklinghausen and Conheim has become a fundamental barnch of medical science. Obstetrics, rescued from the hands of ignorant midwives, has been with its allied branch gynæcology, raised to its legitimate position as a science. Preventative medicine and hygiene, cultivated to an extent previously unknown, have prolonged the average of human life. Organic and physiological chemistry have been substantially created, and achieved important and brilliant results. Physiology has grappled with the abstruse problems of structure and life, and has revealed so much as to make timid people tremble at the audacity of its efforts. The reflex action of the nervous system, by its thorough investigation, may be ranked next in importance to the discovery of the circulation of the blood. The secrets of digestion and assimilation have been disclosed. The interior of the chest has been laid open to examination, so that the condition of the lungs and heart can be marked out with an accuracy like that with which the engineer marks out the topography of a mountain. The microscope has penetrated the secrets of structure and tissue. The spectroscope has traced the devious wanderings of drugs from the stomach to the remotest organs of the body. Chemical analysis has traced the transformation of food into various forms of force, such as motion, heat and thought. Materia medica has been made rational and effective, by cleansing it of hundreds of its filthy compounds and useless formulæ and superstitions, and by adding to it numerous agents that botany and chemistry have discovered. Through the study of bacteriology, and the practical knowledge obtained of the effects of micro-organisms in the production of disease, the practice of surgery has been regenerated, and medicine has received a stimulus, the great effects of which it will be difficult to foretell. The adaptation of electricity to lighting purposes has assisted in illuminating portions of the body; while the Roentgen ray has rendered visible to the eye the deepest or most obscure structures with a degree of accuracy that can scarcely be appreciated by those who have not had an opportunity of witnessing the effects of its penetrating powers.

This increased knowledge has led to increased power to cope with disease, as may be shown in detail by pointing to the practical extinction of small-pox and typhus fever, to the success in keeping cholera at bay, to the enormous reduction in the mortality following the performance of major surgical operations, and finally to the fact that during the reign of our late beloved Queen the average duration of life has been increased by three and one-half years.

Though every branch of medicine has felt the stimulus of the nineteenth century progress, in none have transformations been so great, or success so signal, or the progress made so evident as in surgery. Into a few of these it may not be uninteresting to look.

Amputations.—At the present time, when the success following amputations is so great, and when one scarcely ever sees a person die as the result of the operation, unless performed when the patient is in extremis from injury or disease, it can scarcely be credited how such surgery was looked upon by our forefathers. A prominent Prussian surgeon advocated doing away with amputations altogether as a method of treatment. Mons. Tisot wrote a monograph "Sur l' inutilite de l'amputation des membres" in which he set aside the operation as useless, speaks of it in the most opprobrious terms, is shocked at the horror of it, and exhorts surgeons to abandon the murderous and cruel method of amputation. Nelaton, when speaking of amputation of the thigh, relates that he was forced to ask himself the question whether morally he ought to undertake such an operation, for every case died a few days after from septic absorption.

The high mortality following amputations may be studied from another standpoint. After the battle of Fontenoy in 1745 the French Royal Academy offered a prize for an essay on the best method of performing and treating amputations. The prize was adjudged to Mons. Faure who states in his essay that of three hundred amputations of all kinds after the battle only thirty were successful. Larry contrasts this with his own success in the Napoleonic wars in which he says he saved three-fourths of the cases. Even such a mortality, in the hands of the most successful operator of the day, must be viewed by us, in the present light of aseptic surgery, as criminally high.

The Head.—All that is known of the surgery of the head has been brought to light within the last sixty years. Previous to that time nothing was known of cerebral localization; all the science and art that are connected with the names of Hughlings, Jackson, Ferrier, and Victor Horsley were yet in the future. The use of the trephine was almost unknown. Now, owing to the accurate knowledge of the topography of the brain and of cerebral localization, tumors are successfully removed from within it, and abscess cavities explored and opened, and cases of apparently hopeless spinal disease cured by operation.

The Eye.—In attempting to make a survey of the development of ophthalmic surgery only the briefest reference can be made to the landmarks of progress. The discovery of the ophthalmoscope in 1851 by Helmholtz, and its practical application, has accomplished much in the alucidation of intra-ocular disease, and the benefits which it has conferred upon general medicine and surgery cannot be too fully estimated.

The valuable local anæsthetic properties of cocaine added another great boon to this special department of medicine. By the installation into the eye of a two per cent. solution complete anæsthesia of the cornea and conjunctiva follows some moments later. This discovery has wrought wonders in simplifying the management and operative treatment of eye cases.

To peruse the records of the treatment of cataract in the early portion of the century and place them in comparison with modern methods is painfully impressive. Anæsthesia, general and local, was of course unknown. Suppuration in a more or less degree was an almost ever present accompaniment of an operation for cataract. Severe reaction, due mostly to septic causes, was the rule, to subdue which patients were subjected to repeated venesections, dosed with calomel and opium until severe salivation supervened, and in the later stages, provided that the eye and the patient had survived they were extensively blistered behind the ear, over the nape of the neck, and sometimes between the shoulders.

There was another disease of the eye, glaucoma, which baffled all treatment, moreover the most distressing feature about it was that its onset and progress always tended to terminate in blindness. Since then the experience of many years has shown that the most brilliant results have been obtained by a simple operation known as iridectomy, counteracting as it does the destructive effects of the disease upon vision.

The Chest.—The surgery of the chest is an example equally vivid. The story of the treatment of empyema as it existed in the early part of the century is one of the darkest pages of the whole history of surgery. Literature streams with the great mortality following the management of the disease. Out of twelve cases under the care of Velpeau not one recovered, out of fifty cases under the care of Dupuytren all but two died, and Sir Astley Cooper complained that he could not get one single cure. Today if we eliminate complications the mortality may be reckoned below ten per cent.

Abdominal Surgery.—This is a field so vast that an account of it is beyond the possibilities of time. Its establishment had its foundation in the operation known as ovariotomy. It was during the first decade of the nineteenth century that Ephraim McDowall, by performing the first successful operation, contributed to surgery one of its greatest triumphs. The establishment of ovariotomy upon a sound basis revolutionized abdominal surgery, and it is difficult to estimate the amount of good which it has bestowed upon humanity. The student of fifty years ago would see an occasional operation for strangulated hernia, there he would stop. The surgery of the liver, the gall-bladder and the kidney was unknown. Operative interference in affections of the gastro-intestinal tract, obstruction of the bowels, and in diseases of the appendix was scarcely contemplated, the unfortunate sufferers going down to a certain death without even a hope for relief. It may be said that the present vast field of abdominal surgery was scarcely ever trespassed upon, save perhaps once or twice in a surgeon's lifttime. Since then the art has so increased that all over the civilized world, in every capital, town and village, there are surgeons who with honor to their art and credit to themselves perform the most difficult and intricate abdominal operations which half a century ago would have been considered but little removed from murder.

Obstetrics and Gynæcology.—The advanced position which these branches of medical science occupy is largely owing to the adoption of the principles of asepticism. In 1843 Oliver Wendell Holmes, whose brilliant reputation as physician and anatomist, as well as poet and novelist, is well known, first pointed out and proved by an accumulation of evidence that "the disease known as puerperal fever is so far contagious as to be frequently carried from patient to patient by physician and nurse." At the time when Dr. Holmes' paper appeared the works on the subject taught the non-contagiousness of puerperal fever, and thousands of young mothers were sinking into premature graves as a result of this atrocious fallacy. Stimulated by the investigations of Holmes, and later by the more scientific researches of bacteriologists, the disease is now known to be most highly contagious, and as a result of this knowledge such precautions have been adopted for its prevention or spread that the disease is now an exceedingly rare one, and when it does appear is easily mastered.

Surgical gynæcology has rendered possible the successful treatment of the manifold diseases to which woman is heir, and has offered freedom from pain, happiness and contentment to lives which would otherwise have been shipwrecked or reduced to hopeless chronic invalidism. This fact alone stands out as one of the greatest advances in practical medicine. When we remember that "the hand that rocks the cradle rules the world" it will require no flight of imagination to assist in realizing that this branch of surgery has contributed an untold mine of wealth to nations by increasing the physical and mental powers of its future rulers and citizens.

The Medical Student.—The young man who aspired to be a doctor at the beginning of the century considered himself fortunate in having the opportunity to pick up his professional knowledge while serving an apprenticeship with some well known practitioner. Here he combined the duties of a student with those of a servant. He cared for the doctor's office, drove with him in his rounds, ground his powders, rolled his pills, spread his plasters, extracted teeth, and dressed the cuts, bruises and burns which came to his patron's office for treatment. There was no systemized medical examination. The training of the surgeon was paltry, casual and inefficient. His preliminary education was miserably meagre. It was necessary that he should be able to read and write and pretend to some smattering of Latin.

The schools were in no way formidable affairs. Three or four men made up each faculty, in some schools indeed often one man with iron will and massive intellect constituted the whole teaching staff. There were no laboratories, and, so far as hospital practice was concerned, attendance there was well expressed by the phrase "he walked the hospitals."

Medical Legislation.—The important legislation of the nineteenth century was the Apothecaries' Act of 1815. This Act has proved to be one of the greatest boons ever conferred upon the medical profession. Previous to its enactment medical education was, as has already been hinted at, entirely opitional, and although many possessed degrees or licenses of the Universities or Colleges, the greater number possessed no such qualification. Many of them were wholly illiterate or uneducated, and, what seems strange to us now, very few surgeons, even of large hospitals, had personally dissected the human body.

The Surgeon as an Adviser.—In the early part of 1800 it might be said that there was no science outside our own in which there was such extreme disproportion between the amount of knowledge assumed on the part of the practitioner, and the amount actually possesed by him, and proved to be exact and sound. The reason for this lay more with the sick man than with the man of medicine. The sick man required absolute and exact knowledge from his doctor. He would accept neither possibilities nor doubts, nor confession of ignorance, and accordingly the physician made good by fiction what he lacked in fact. The demands of the patient were hopelessly beyond any powers of supply, and the deficiency was made up by the products of invention. It would seem that the less the man of medicine knew the more he invented, and the more diligently he hid his little light under the basket of a ceremonious and mystery-making treatment. The judicial wig, the academic ruffle, the gold headed cane, the reflective snuff-box and the Socratic air, all made an effective covering for the poor few bones which formed the skeleton of his knowledge. The surgeon of the present day as an adviser is in a position which is so greatly improved that it could hardly have been imagined one hundred years ago. For this he has to thank a more intelligent public, and that he has patients whose education to a large extent enables them to appreciate the nature of scientific problems, and with whom it is possible to discuss difficulties, and to own to lapses of information. Further, the additions made to surgical lore have been so substantial that in many departments of surgery it has reached the state of an exact science.

The Surgeon as an Operator.—During the nineteenth century the surgeon as an operator has passed through a rapid metamorphosis. The operator of the olden time certainly possessed many qualities which are now falling into abeyance. The success of his craft depended largely upon his daring, upon the alertness of his eye, the steadiness of his nerve, and the rapidity of his movements. He stepped into the arena of the operating theatre as a matador strikes into the ring. Around him was a gaping audience, and before him was a conscious victim, terror stricken and palsied with expectation. The knife must needs move on its way swiftly but steadily, undeterred by struggle or bursts of hemorrhage, the blade must needs pass without faltering or hesitancy. It is little wonder if the older surgeon became rough and stern, if his sense of feeling became chilled and if the sympathetic side of his nature suffered some suppression.

Within the compass of thirty years the whole state of affairs has changed. Consideration for the patient and for the patient's sensibilities has become a matter of the first moment, and the operator has learned that his work is best done if done with gentleness and tact, and that haste and bluster, coarseness and coarse handling, are out of place around the operating table. Success is no longer to be measured by the number of minutes occupied in the amputation of a limb, but by the state of the patient many days after the measure has been completed. The triumph of the older surgeon was immediate and often scarcely beyond the arena of the theater; today the surgeon's triumph is seen in the surgical wards or convalescent home.

These great advancements in the science and art of surgery have been the outgrowth of several factors which stand out boldly as nineteenth century achievements. First we may note among these the greater facilities for the study of anatomy through favorable legislation. The Anatomy Act of 1842 in England marked one of the most important dates in the medical education of the century, giving to the student ample facilities to become familiar with the anatomy of the human body.

A more perfect technique in the arrest of hemorrhage is another factor. To the operator at the beginning of the century hemorrhage was a barrier to the performance of many operations that are today made without fear. The surgeon has now at hand the precautionary ligature, the pressure forceps and the rubber bandage.

Perhaps the factor which has produced the greatest degree of success is the discovery and practical application of artificial anæsthesia by means of sulphuric ether and chloroform. In every part of the civilized world, and wherever in that region called uncivilized the pioneers of civilization have penetrated, the power to produce anæsthesia is acknowledged and blessed. The knowledge of it is now so universal, and the blessings which attend it so constant, that we are sometimes apt to think as little of its existence and power as we do of the presence and power of light. It is impossible to estimate or form any adequate conception of the amount of human suffering which anæsthetics have relieved and prevented. To this discovery the human race owes the blessing that no pain follows the course of the surgeon's knife; peacefully and calmly the patient sleeps while the surgeon deliberately, confidently and intelligently does his work. By its use the intense agonies of travail can be attenuated or abolished, sleep produced in spite of intense pain, and at the word of the physician any sufferer can be rendered unconscious of torture. Such a power which John Baptista Porta strangely prophesied centuries ago, which mesmerism hinted at, which mystics now and then proclaimed, but which the world never dared to expect, was first shown to exist and to be capable of safe and easy application at the Massachusetts General Hospital in 1846. It is perhaps the greatest contribution to practical medicine the world has ever received.

Next to the discovery of ether and chloroform no event has so profoundly influenced medical practice and teaching as the realization of the tremendous importance of the theory of bacterial infection. Through this theory of the action of bacteria in the production of disease we have gained a practical working knowledge that is of incalculable value in the management of these processes, even though our hopes in securing a specific means of treatment have not yet reached their full fruition. What better illustration of this can be given than the absolute disappearance of hospital gangrene, or of puerperal fever, from the hospitals in which these diseases were a curse to the attendants, and a frightful meanace to the patients. In both the gospel of cleanliness according to bacteriological methods has done its work thoroughly, and these diseases have disappeared practically because of our knowledge of the bacteria and their methods of action. Through the possession of this same knowledge it is possible for any surgical procedure to be carried out with absolute certainty that no unfortunate result will follow as far as surgical fevers are concerned. A field for work has thus been opened to the surgeon which was scarcely dreamed of a few years ago, and operations are now daily performed which in the past were done as a desperate and last resort.

The Outlook.—So much for the past but what of the future? While relating our gains and triumphs let us not be consumed with pride, and when casting the surgical horoscope let us endeavor to avoid that degree of Pharisaical contentment upon which we might feel inclined to repose. Though we may not be able to see along what lines great advances can be made, and may even think that more outposts have been established than can be successfully maintained, the unexpected may be unfolded to us in the future more wonderful than the past. Let the statement of Ambrose Pare, made in 1575, serve as a warning not to be too self-opinionated as to our present standing, or too certain as to the impossibilities of the future. He says, "God is my witness, and men are not ignorant of it, that I have labored for more than forty years to illumine the art of surgery and bring it to perfection. And in this I have striven so diligently to attain my end that the ancients have nothing wherein to excel us save only the discovery of first principles, and posterity will not be able to surpass us (be it said without envy or offense), except by the addition of a few things, such as are easily added to discoveries already made." Such was Pare's opinion of surgery in his day and his outlook for the future, yet his description of the mortality among the soldiers wounded at the capture of Rouen is awful to contemplate when compared with the results of our modern field ambulance work, and of our field and base hospitals. Pyæmia, hospital gangrene, acute septicemia, abscesses, and other conditions too sickening to relate, bristle out in every line of his history of the military surgery of that day.

It is not unreasonable to hope that a great future is in store for those leading ideas which are now permeating the theory and practice of our art. Of these ideas we may particularize two:—

First, that disease is to a large extent due to some toxic influence present in the body, either derived from without or generated in the body itself; and second, that this toxic influence is in many cases the product of micro-organisms. Those who think that these doctrines do not stand upon a secure basis, and will be merely one of the passing fashions of medicine, have not sufficiently grasped the significance of the life work of Pasteur. The germ theory of disease is not a mere brilliant and barren hypothesis. It has already revolutionized surgery, it has given us a remedy for diphtheria and hydrophobia, and it will give us much more.

A study of bacteriology teaches us an intelligent method of the management of disease, and it may safely be inferred that if our knowledge so attained be properly applied the scourge of infectious diseases may be largely arrested, if not entirely prevented. This is fully proved in the case of typhoid fever, pulmonary tuberculosis, pneumonia, cholera, tetanus, and other diseases, in which we know the specific cause and its site, and accordingly it may readily be assumed that the acute exanthemata, as scarlet fever, and measles, in which the specific cause has not yet been clearly demonstrated, will soon be placed in the same category.

Along the lines of surgical advances circumstances in the tendencies of today foreshadow to some extent what may be buried in the future. The changes which have swept over the world of surgery have extended the possibilities of the art, and have at the same time added a host to the ranks of those who practice it. Some thirty years ago the roll of such as could claim to be accomplished operators was very small. The great deeds of surgery were limited to cities, the general practitioner seldom took up the scalpel. But here at the beginning of the twentieth century the disposition of affairs is wholly altered. The days of the great operator, the one to whom all had to come, or had to suffer or die, are rapidly passing away. The practice of pure surgery, which was limited to the prominent few, is now becoming common to many, and the more ambitious performances of surgery are no longer restricted to the great centres, but are carried out in the little town, in the cottage hospital, and even in the cottage itself. The general practitioner is laying claim to operate upon his own patients, and is carrying out his intention in no hesitating manner. And this change is well. The diseased who were unable to visit great surgical centres, or had not in their possession the necessary means to pay the large fees demanded, had to die unaided, or live in suffering until the great summons relieved them from their misery.

The democratic movement is the active power of the day, and an oligarchy in the community of the surgeons has been replaced by an earnest democracy. Thus the manifold blessings arising from the twentieth century surgery will be carried to and administered in every hamlet, as well as in every city, and will be available alike to those who live in the hovel as in the mansion.—Kingston Medical Quarterly.

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The Alumni Association of the College of Medicine and Surgery of the University of Minnesota held their annual meeting and luncheon in St. Paul, June 6. These officers were elected: Dr. Louis B. Wilson, Minneapolis, president; Drs. George B. Head, Minneapolis, and Frank W. Dean, Council Bluffs, Iowa, vice-presidents; Dr. Warren A. Dennis, St. Paul, secretary and treasurer.

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The Minnesota State Medical Association held only a business session this year, in St. Paul, June 3, at which the following officers were elected: Dr. Wm. A. Hall, Minneapolis, president; Dr. John P. Humes, Winnebago City, vice-president; Dr. Thomas McDavitt, St. Paul, secretary; Dr. Richard J. Hill, Minneapolis, treasurer.

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Cocaine sniffing is on the increase in the South among the negros. The drug is sniffed up the nose and the results produced are somewhat the same as those obtained by smoking an opium pipe.

Michael Doran, who has slept for two years, has been discharged as cured from the Binghamton, N. Y., state hospital. When he was sent to that institution his case puzzled the physicians. He had an uncontrollable desire to sleep and his naps grew longer and longer. All efforts to awaken him proved unavailing and finally he went to sleep and remained in a somnolent state for two years, his only movement being to turn from one side to the other as though restless. It was found necessary to feed him artificially, and he remained in this state until four months ago, when his attendants noticed an occasional flutter of the eyelids. This lasted for several days, and then as a man carrying bread passed through the ward, he asked for "bread," the first word spoken in two years. It was given him, and from that time he recovered rapidly until he was able to go out in the sunshine. This quickly restored the use of his limbs and now he has been discharged as perfectly cured of any desire to take lengthy naps.

## NEY YORK NEUROLOGICAL SOCIETY.

(Journal of Nervous and Mental Diseases.)

### PARALYSIS AGITANS.

At a meeting of the New York Neurological Society last November, Dr. M. G. Schlapp presented a case of Paralysis Agitans without Tremor, the chief features were the rigidity of the muscles, the expressionless face and the position of the arms, body and hands. The flexor muscles were more contracted than the extensors, and there was no tendency to fall in any particular direction. Such a case might be diagnosed as catalepsy, unless there were other symptoms of contra-indication. The doctor also presented a case of paralysis of the Duchenne-Erb type, a man who six weeks before had fallen from a bicycle, striking on his shoulder. He was unconscious for five hours. The anterior pectoral muscles were affected. There was complete reaction of degeneration in the pectorals, biceps and the coraco-brachialis, and incomplete in the triceps and supinators. There was a peculiarly distributed area of anesthesia showing involvement of the musculo-spiral and musculo-cutaneous nerves chiefly. The lower part of the pectoral muscle showed some slight response to the faradic current. The lesion evidently implicated the fifth and sixth roots of the cervical plexus. As the anterior thoracic nerves were involved it was not a perfectly typical case. Drs. C. L. Dana and M. Allen Starr said that they had each seen a similar case.

Dr. J. Fraenkel presented a case for diagnosis, a man 40 years of age, a tailor by occupation, who said that he had been well until a year and a half before. There was no family history bearing on his condition, nor was there any history of any previous acute trouble. About eighteen months before he had been pushed roughly off a street-car. On awakening the next morning at home he was absolutely helpless, being unable to move his upper or lower extremities. After six months he had been admitted to the Lebanon Hospital, but had left there, according to the history, unimproved. On coming under the care of Dr. Fraenkel, an extensive eczema was noticed at once. On a second examination the shoulder joints were found partialy ankylosed, and the surrounding muscles appeared atrophic. There was atrophy also of the supra-spinatus and infra-spinatus, and slight atrophy of the serratus muscle. The electrical reactions were not changed. A thorough examination of his nervous system proved absolutely negative. There was a peculiar atrophic condition of the skin, and a cyanosis of the peripheral parts, and slight valvular disease of the heart. The diagnosis seemed to rest between rheumatism, a general tropho-nurosis and general syphilis.

### DISCUSSION.

Dr. B. Sachs had examined the above case previously and had been led to think of symmetrical muscular atrophies such as occur after arthritic processes. It was not usual, however, to have them quite so symmetrical. It did not seem to him to correspond to any of the dystrophies or any of the spinal forms of progressive muscular dystrophy. He had a suspicion that the case might be one of leprosy.

Dr. M. Allen Starr said that when traveling in Norway some years ago he had seen a number of lepers, and had his attention called to the existence of muscular atrophies in them. The peculiar appearance of the man's face had led him to think of leprosy without knowing Dr. Sachs' views on the case.

Dr. Schlapp said that Bechterew had described somewhat similar cases of "stiff back." There was a possibility of some of the nerve roots being affected.

Dr. C. L. Dana thought the case one of rheumatoid arthritis and the condition of the skin the result of the eczema.

Dr. F. Peterson thought it was an anomalous type of chronic rheumatoid arthritis. The fact that the muscles reacted normally would tend to confirm this belief. It was certainly not a rhizomyelic spondylosis. It might, of course, be a case in which the spinal cord symptoms were developed later.

Dr. Fraenkel said that very careful inquiry had failed to elicit anything but the most positive statements that the man had been in perfect health up to the time of being thrown from the car. He had come from the southern part of Russia.

A dermatologist had seen him and had been told that leprosy was suspected; but he had replied that the thickening of the face was due to the previous eczema.

### ACUTE ATAXIA.

Dr. C. L. Dana read a paper, classifying acute ataxia as: (1) the acute bulbar and cerebellar ataxia; (2) acute spinal ataxia; and (3) acute peripheral ataxia, due to multiple neuritis of the sensory type. He said that Ebstein had reported a case of acute ataxia with autopsy, and, as patches of sclerosis had been found, the case had been looked upon as one of multiple sclerosis in an early stage. The peripheral type includes those cases due to the sensory form of multiple neuritis. Up to recent times there had been no definite description of acute ataxia of spinal origin not due to tabes. In 1897 Dr. Strauss had, however, reported two cases, occurring in men about thirty-four years of age, without history of syphilis or other infection. The description seemed, to the reader of the paper, suggestive only of locomotor ataxia. The cases of acute ataxia first described by Leyden, and still referred to by him as acute bulbar ataxia, certainly had a strikingly characteristic clinical course, so that the name might have some clinical value. Special attention was called to five cases of non-tabetic spinal ataxia, which were reported in the paper. The following is illustrative: A man of sixty, on Jan. 9th, 1890, had begun to feel numbness in his feet, and, in a few hours, this had extended to the mid-dorsal region. He soon developed a tight sensation around the waist. Ten days later, on coming under observation, he had a staggering ataxia gait, and soon became tired. He could not stand with the eyes closed. He showed distinct loss of muscular sense, but no impairment of the functions of the rectum or bladder. The patient had gradually recovered. In another case, that of a man, seventy-six of age, syphilitic infection had occurred one year previously. Just after recovering from the attack of iritis he had developed a type of ataxia like that described in the preceding case. In two other cases the disease had been in old people, but in neither of them had there been a history of syphilis. They were both victims of overwork, and both had presented symptoms of marked senility. It would seem that these cases were due to senile arterial changes, or due to syphilitic changes in the blood vessels of the spinal cord, causing hemorrhages or blocking of the vessels, or both. It was possible that in old age the syphilitic virus might lead to attacks on the posterior rather than the lateral columns, so that the type would be ataxic rather than of the spastic-paraplegic type. All of his patients had recovered from the ataxia. The differential diagnosis must be made from an acute onset of a locomotor ataxia.

### DISCUSSION.

Dr. Joseph Collins said that his clinical experience had been somewhat different from that of Dr. Dana, so that he had been led to a different conclusion regarding the etiology. Some of his cases had been in persons of about forty-four years of age, without evidence of syphilitic infection. Sometimes there had been inability to walk in the course of a week. This had been associated with slight incontinence of urine, at times, and with sexual impotence. In these cases there had been none of the cardinal symptoms of multiple sclerosis, and no evidence of cardiac or vascular degeneration. * *

Dr. S. Ely Jeliffe said that he had had under his observation for three years a gentelman, thirty-six years of age, who had been infected with syphilis. He was a politician, and at the crisis of a campaign he had suddenly found himself unable to walk. On either side there had been ataxia confined to the lower limbs, associated with some trouble of the bladder. He had been put on antisyphilitic treatment, and was practically well in three weeks. He had remained well for a year, and then had a sudden attack which had resulted in a typical paraplegia. He had eventually died from this, and his spinal cord had exhibited the usual lesions of that affection. In the first attack there had seemed to be an acute ataxia due to involvement of the minor blood vessels.

Dr. Schlapp reported the case of an intemperate man of fifty. Three years ago he had developed ataxia, and now had a disturbance of tactile and pain sense in the feet. Electrical reaction was diminished. The case looked to him like a peripheral neuro-tabes. The Romberg symptom was present. The knee-jerks were slightly exaggerated. The case might perhaps be classed as an acute ataxia of the peripheral type.

Dr. Fraenkel said that from the pathological standpoint the condition probably occurred quite frequently, and was often overlooked. He would like some points on the differential diagnosis between organic and functional conditions. The symptoms given by Dr. Dana were not sufficiently objective.

Dr. I. F. Terriberry commented upon the fact that these old people reported by Dr. Dana should have recovered so readily if the vascular system had been so damaged. For this reason he doubted if the vascular system had been especially at fault. Ataxia was a symptom rather than a disease, and the attempt to consider it as anything but a symptom was likely to lead one astray. He was in favor of considering these cases that recover late in life as of neuritic origin.

Dr. Dana said that he had not met with the class of cases described by Dr. Collins. Cases reported by Dr. Brown, of Chicago, did not seem to be exactly pure cases of ataxia, and hence he had not referred to them. One must distinguish between an ordinary unilateral ataxia, such as occurs from acute softening of the pons or medulla, and the acute bulbar ataxia of Leyden, which is bilateral. It was a common experience to see old people with hemiplegia and hemorrhagia recover, in spite of the degenerated condition of the blood vessels.

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Dr Pozzi in a recent lecture in Paris, paid a glowing tribute to American surgeons, whom he characterized as "scientifically audacious and brilliantly cool."

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A poor woman of Ohio has been suffering for about six years with stomach troubles. A treatment for stomach worms resulted in the discovery that she had carried a snake two feet long. She will recover.

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It is reported from Huntingdon, W. Va., that twin sisters who had married twin brothers recently gave birth to triplets within an hour of each other.

Patient—Now, doctor, what's the matter with me, anyway?

The Head Consulting Physician—My dear sir, do you suppose that if we knew what was the matter with you we would have decided to hold a post mortem?

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So fine and light are spider webs that a single line of web stretched from Fargo to Minneapolis would weigh eight grams or about one-fourth ounce.—Sanitary Home (Fargo).

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A YEAR'S INCREASE IN MINERAL WEALTH. It is of course very difficult to give the output of minerals for any definate period with accuracy, but the most reliable sources of information gave advance estimates, so that it was possible for the compilers connected with the Engineering and Mining Journal (New York City) to prepare tables of production that were as near the actual output as possible. The total value of the metals produced in the United States in 1900 was $509,800,992, as compared with $946,057,320 in 1899. The value of the output of nonmetallic substances was $755,680,991, as against $645,754,305 in 1899. The total value for the two years, after allowing for duplications, was, respectively, $1,157,162,182 and $1,049,230,594.

The more important items of this production in metals were: Gold, valued at $78.658,755; silver, valued at $37,085.248; 615,656,802 pounds of copper, valued at $100,554.345; 251,781 tons of lead, valued at $22.005,659; 122,850 tons of zinc, valued at $10,786,230, and last, but not least, 13.914.505 tons of pig iron, valued at $238,078,737.

The total of gold production of the world in 1900 amounted to $256,462,438, which compares with $313.641.534 in 1899, the decrease being entirely owing to the stoppage of gold production in the Transvaal by the war, nearly all other producing countries showing an increase.

In 1900 the United States took the lead among the gold producing countries with $78,658.755. Australasia ranking second with $75,283.215. The large production of the Klondike has put Canada in the third place with a total output of $26,000,000, while Russia was fourth with $23.090,862. These four countries produced over 80 per cent of the gold of the world.

The total amount of dividends paid 210 companies allied with the mineral industries of the United States in 1900 was $130,940,000. This large disbursement places mining among the most profitable of the country's industries. The metal mines paid $51,502,000 or 39.3 per cent of the total, and the industrial companies $79,439,000 or 60.7 per cent. Among the leading payers were the copper companies, the gold and silver mines $13,907,000, and the petroleum companies $48,816,000.

THE BLACK HILLS. Mr. Frank E. Bower, of Deadwood, is the author of a very interesting paper in the South Dakota and Western Advocate, a new monthly magazine, published by Mr. Charles C. King, at Scotland. The article has the simple title, "The Black Hills," and covers nearly two large pages. Two paragraphs, regarding the geological formation, and the mining interests, are borrowed and reproduced below:

"The Black Hills embraces an area of six thousand square miles, about two-thirds in Western South Dakota and the remainder in Wyoming. On the north, the boundary is the north fork of the Cheyenne river, and on the south, the south fork of the same stream. In its upheaval, the Hills seems to have pushed through the overlying formations, especially on the east side. The appearance on the eastern border of the Hills is that of inaccessibility, for the mountains are very bold and rugged. In the interior portions of the Hills are to be found the formations of the oldest age, known as the Archæan or Eozoic. These are the slates, or shists, with masses of granite lying in them. The later formations lie at an agle of 40 to 50 degrees, Hills on all sides. The brown sandstones known as the Potsdam, from 150 to 250 feet thick, rest upon the slates and overlying the sandstone is a layer of limestone 400 to 500 feet thick, capped with 200 to 300 feet of sandstone, usually red in color. Next comes a layer of marley clay 200 to 400 feet thick, in which there is a layer of purple limestone about 40 feet thick. The last capping is sandstone from 400 to 800 feet thick, divided into layers by clay and shale."

"There are over two hundred mining companies operating in the Black Hills at the present time. They give employment to about forty-five hundred miners, who earn yearly about five and a half million dollars, or from three to three and one-half dollars per day. In various commercial pursuits, there are employed about thirty-five hundred men, who earn yearly a little over three million dollars. The lumber business of the Hills, is also important, there being about one thousand men employed, who earn yearly about one thousand dollars. The men employed in the manufacture of brick, stucco and lime, number about eleven hundred and their earnings amount to over one million dollars. This gives a total of eleven thousand one hundred men, who earn yearly over twelve million dollars. The value of the output for last year, of the valuable metals, was nearly ten and one-half million dollars; brick, six hundred thousand dollars; lumber, one million eight hundred thousand dollars; stone, lime and plaster of paris, another million dollars, making a total of over fourteen million dollars from the Black Hills proper. Add to this the returns from the cattle and sheep industries, amounting to about nine million dollars, and a grand total of twenty-three million dollars is made. The Black Hills will show a steady increase in the output of gold, for the next few years."

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GALLIUM THE MOST VALUABLE METAL. "The most costly metal is gold, and silver comes next." That, said a chemist, "is what the average man would say if you should ask him, but he would be very far off the truth indeed. Gold is worth $340 a pound and silver $13, but there are a score of metals worth much more. Chromium and tellurium cost for instance, $700 a pound, and asnium and zircon, which are used in the making of electric mantels, $1,420 a pound. Barium cannot be gotten under $2.110 a pound, and rhodium and niobium are worth almost $2,700. Strontium's market price is $4.509; didymium's is $8.400 a pound. Rubidium is a metal worth $11,200 a pound, and vandium is worth $13,000. Above all these, however, gallium stands, a metal discovered in 1845, a pound of which, if it were procurable, would be worth $75,500, or 228 times as much as a pound of gold, and 5,961 times as much as a pound of silver."

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Andrew Wharton, a Cripple Creek miner, has donated valuable mines to build and maintain a permanent home for evangelistic work in the center of Chicago. The property donated consists of ten claims near Cripple Creek, embracing 103 acres.

# MEDICAL DIAL

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JULY, 1901.

## SUGGESTED REFORMS IN TEACHING.

Dr. H. M. McClanahan, President of the State Medical Society of Nebraska, in his address before the society, made several good suggestions (Western Med. Rev., June 15, 1901,) in regard to some new modes of teaching in our medical colleges. He charges the real rise and progress of osteopathy and its success to the lack of teaching of massage to our medical students, and gives instances of cases to illustrate his remarks. In one case, a man suffering from chronic constipation, after being treated by seven doctors, with drugs, without success, employed an osteopath who cured the patient by the proper treatment—massage. But another case illustrated the dangers of massage treatment, without scientific knowledge. A woman, having a cystic ovary, in the hands of an osteopath, was made seriously ill by massage—the one idea treatment.

The hold that Christian Science has taken upon the minds of the people he also ascribes to the lack of psychological teaching in our medical colleges, and suggests to our medical faculties the propriety of giving more attention to these subjects, that in the end our physicians may be prepared to take advantage of such cases for treatment in a proper manner, and prevent them from falling into the hands of irregular, and oftentimes incompetent practitioners of medicine.

## AMERICAN MEDICAL ASSOCIATION.

There is only one possible error in the reorganization of the American Medical Association, wherein it was decided to throw all the business deliberations of that body in the future into the House of Delegates, to be composed of not more than 150 representatives of the various state organizations, that is not apparent just at present. The error cannot be known now, and only future events can determine whether the long-sought-for innovation will redound to the glory of the Association. If the House of Delegates shall reach the level of a star chamber, with medical politics for its guide, the profession will be glad enough to resume the old fashioned way of doing business.

The House of Delegates is to be made up of one representative from every 500 members of each state and territorial society, or fraction thereof. Members will be elected for two years, and to be eligible must have been a member of the American Medical Association for not less than two years. This body will transact all the business of the Association, will elect all its officers, but no delegate shall be eligible to any office outside the House.

The new plan is cleverly arranged, and if properly applied will conform strictly to a representative government. That it can be adopted with satisfaction to the profession at large is self-evident, for what intelligent American is there who does not believe in a representative form of government? Such a plan ought to weld the various state and territorial societies and the great parent organization into one homogeneous body with but one object in view, that of placing the medical profession of this country on a plane second to none in the world, if not in the forefront of them all.

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## TREATMENT OF THE NEURALGIAS.

In the Alienist and Neurologist for April, 1901, Dr. C. H. Hughes, the distinguished editor and authority in nervous diseases, discusses in an article the successful management of the neuralgias by medical means and local applications in preference to surgical treatment; in fact he condemns the use of the knife in the following emphatic terms: "The surgical treatment of neuralgia is a reproach to neuriatry and stigmatises modern neurotherapy with opprobium. * * * The neuralgias are generally capable of remedy and the conditions that engender them are not ordinarily remediable by the knife." All neuralgias are obstinate as to treatment, often very annoying to the doctor, distressingly painful for the patient, capricious, appearing and disappearing apparently without cause or method in their attacks; to successfully treat these cases requires the patience of a Job and the tact and infinite resources of the most skillful physician. The profession will gladly welcome all the light that can be thrown on the subject, and suggestions from one who has been for more than forty years a close observer of these forms of disease, and successful in treating them, will come with the weight of undisputed authority. The doctor says: "The neuropathic nerve state is usually a result and not a cause—and the cure is not complete when the nerve is remo ved, though the cure may follow the operations and conditions of relief;" and he recommends the trial of the rest and break in the change of environment, together with proper and persistent medication previous to any surgical interference; certainly, before "the graver destructive and deforming operations are undertaken." In this discussion the doctor omits the form of phrenalgia of the melancholic as requiring the distinctive treatment of the experienced alienist, and the varieties of cephalgia, including the migraine, "though the latter, in remedial aspect, may well be regarded in the light of some forms of ordinary neuralgia;" but he takes up the "neuralgias that taunt the profession with their frequent failures in treatment," and outlines for them the principles and prescriptions for their successful therapeusis. And to this Dr. Hughes adds, "this formidable operation should never be done for trifacial neuralgia until after thorough trial of the many efficient resources of neurologic medicine applied by skillful neurologic hands and not alone by the surgeon or the general practitioner, and particularly not until a thorough and heroic anti-malarial treatment has been employed in certain cases, and if the history warrants, a complete syphilitic and anti-anemic treatment, coupled with the heroic use of green root tincture of gelsemium, and the moderate but persistent employment of galvanism from the cerebral center to the peripheral, through the head and over each affected nerve tract, with static electrization added through the system generally." With a fair chance of steady treatment, no case has passed from the doctor's hands to the surgeon, and relief has been secured by persevering treatment, and strychnin in small rather than large doses, and not as the chief reliance, but atropin or belladonna have been added. "Large doses of strychnin were most useful in cachemic states of chronic malarial poisoning of the blood, viscera and nerve centers so often met with in the middle states." Large doses of muriate of ammonium, Anstie's method (30 grains ter die), mixed with a solution of bromid of ammonium are sometimes useful. Strontium and sodium bromids for alternative treatment, the former with pepsin essence and pancreatin as solvent (Fairchild's preferred), or, with patients abroad, the officinal wine of the respective pharmacopoeias of the countries. For the local arrest of pain menthol and camphor dissolved in sulphuric ether and chloroform, and other anodynes applied hot or cold as most agreeable to the patient. A hypodermic injection of chloroform in the region of the pain will arrest it immediately. From this list of remedies some one or more may give the nervous system time to rally from its exhausted state which must necessarily follow a prolonged attack of excruciating pain.

In the front line for treatment the doctor places the "intractable trigeminal neuralgia, and next, the scitica, then the neuralgias of the labia, the ovaries and testes, the heart, and of all the viscera, and that of the extremities (planter, palmer, et id omne genus)." Many of these must be treated medically alone as the surgeon cannot reach them with the knife. The most painful of all these forms is probably the trigeminus. It is for the treatment of this for relief that the suregons have attempted the most daring and radical remedies, cutting the periphiral outposts of the nerve until they have entered the encephalon itself and removed the Gasserion ganglion, with deaths from the operation from twelve to twenty-two per cent, "and with failures from recurrences on the opposite side,corneal ulcerations, loss of sight, deafness, impaired deglutition, changes of disposition, continued ill health and the insanities." Surely a formidable list of evils, sufficient, it would seem, to deter the boldest surgeon from recommending the operation, and the worst suffering patient from taking the risk when the result as to cure, or improvement, is a matter of so much doubt. The pathology of trigeminal neuralgia has not been located exclusively in the Gasserion ganglion, the attacks being paroxysmal and recurrent do not point to a persistent or permanent lesion there, and similar morbid changes have been found in the aged, "the result, probably, of the violent molecular disturbances, caused by alviolar ostitis, dental caries, cold, worry, malaria, etc., and the general peripheral neural origin of the disease; all of which strengthens the view that the involvement of the ganglion is a secondary matter." The doctor quotes from J. Chalmers Da Costa, in the March, 1899, number of Progressive Medicine, who says: "Before concluding that medical treatment is futile we should be sure that massive doses of strychnin are given after the method of Dana. In a recent case of violent tic in which we had determined to perform resection of the Gasserion ganglion, the strychnin treatment was employed by my friend, Dr. Chas. S. Potts, with the result that the pain ceased completely."

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## LIST OF MEDICAL GRADUATES, UNIVERSITY OF MINNESOTA.

The following gentlemen and ladies received their degrees at the commencement exercises of the University, June 5. 1901:

For Doctor of Medicine, 66; College of Medicine and Surgery, 62.—Bertram Sage Adams, B. S., '98, Lisbon, N. D.; George William Argue, Breckenridge; John Milton Armstrong, Minneapolis; William Henry Aurand, Bowdle, S. D.; William Prendergast Baldwin, Michigan City, N. D.; Erle Edson Benedict, Minneapolis; George Edgar Benson, Minneapolis; Ernest Linwood Blackman, Alden; James Blake, Minneapolis; John Elisha Campbell, M. S., Minneapolis; James Edwin Carman, Minneapolis; Rufus Joshua Cassel, Dassel; William Chowning, Minneapolis; James Trent Christian, M. D., Minneapolis; Harry Archibald Cohen, Minneapolis; Danforth Chaucer Cowles, Minneapolis; Leslie O. Dart, Litchfield; Luther Alvin Davis, Bertram; Floyd McArthur Day, Preston; Lester Albert Dickman, Westgate; John Willis Doyle, Minneapolis; Edward August Eberlein, Blue Earth City; Gustav Adolph Eisengraeber, Jerichow, Germany; Owen Evans, La Crosse, Wis.; C. Francis Ewing, Angola, Ind.; Sidney Stewart Farmer, Owatonna; Robert Cyrus Farrish, St. Paul; James Cory Ferguson, Olivia; Louis H. Fligman, Helena, Mont.; Alson James Foster, St. Paul; Martin O. Hanson, Lemond; Harry H. Hazeltine, Ashland, Wis.; Claude Frederick Holst, Red Wing; Mary Parker Hopkins, St. Paul; Charles Alexander Houston, Kasson; Herman M. Johnson, Pelican Rapids; Herbert William Jones, Berlin, Wis.; Frederick Andrews Kiehle, B. A., Minneapolis; Finn Koren, B. A., '98, Montevideo; Victor Joseph La Rose, St. Paul; Robert Bruce Lees, Minneapolis; Thomas James Maloney, St. Paul; Charles Naumann McCloud, St. Paul; Henry Thomas McGuigan, Millville; George B. Mathisen, Evansville; Sterling Heber Olsen, Austin; Harvey Gamaliel Parker, Waseca; Jacob Prinzing, St. Paul; Catherine Eliza Putnam, St. Paul; Frank Rose, Minneapolis; James Alfred Sanford, Alderley, Wis.; Francis Joseph Savage, Minneapolis; Henry A. Schneider, Deerfield; Arne A. Stemsrud, Madison; Adolph Stierle, Jr., St. Paul; Harold Lauritz Stolpestad, St. Paul; George Elmer Strout, Sebastapol, Cal.; Samuel Edward Sweitzer, Minneapolis; Joseph Robert Truscott, Minneapolis; Rosa Viviana Vallely, Fairhaven; H. Journeay Wells, Minneapolis; John Clifford Whitacre, St. Paul.

College of Homeopathic Medicine and Surgery, 4.—Harley Gray Bickford, Maine; Roy Ernest Mitchell, Porters Mills, Wis.; Harry Everett Sutton, Minneapolis; Hugh John Tunstead, Minneapolis.

College of Dentistry, for Doctor of Dental Medicine, 31.—William Harrison Ball, Morgan; Albin Brodeen, Minneapolis; Wilbert James Brownlee, Fisher; Harry Burr Child, Minneapolis; Norman J. Cox, B. S., '98, Wasioja; Ernest Everett Creelman, Parkers Lake; Bror Eric Dahlgren, Gothenburg, Sweden; Edward James Doheny, Green Isle; Henry Emanuel Frodeen, Minneapolis; John Louis Holmberg, St. Peter; Carl Johan Holmgren, Minneapolis; Herman

Schmahl Jaehning, New Richmond; Adam Boorman Jargo, Luverne; Martin Calvin Johnson, Minneapolis; Adolph Frederick Moody, Minneapolis; Orrin Chauncy Nelson, Manannah; Adolf Olson, Minneapolis; Alfred Osterberg, Stockholm; John Evans Owens, Sleepy Eye; Frederick William Pepper, Minneapolis; Walter Stevens Rhame, Minneapolis; Will Ernest Sargent, Lowell, Mass.; Al Biley Smith, Minneapolis; Frank Lawrence Stoudt, Hastings; Cyril Fairman Sweet, Mankato; James Earl Thiebaud, Minneapolis; Thomas L. Thompson, Peterson; Adolph Theodore Thorsen, New Centerville, Wis.; William Winfred Woehler, Waubay, S. D.; William Joseph Works, Hawley; Cecil Fred Yates, New Ulm.

College of Pharmacy, 16; for Master of Pharmacy, 1; Gustave Bachman, Ph. C., Avoca; for Pharmaceutical Chemist, 15—Roland Bock, St. Paul; May Estella Camden, Minneapolis; William Chernusek, Hutchinson; Guy C. Clark, Augusta, Wis.; Eva Emily Greer, Menominie, Wis.; Nelius Julian Johnson, Mabel; Emil Charles Kiesling, New Ulm; Arthur Ferdinand Landeen, Garfield; George E. Negaard, Norway Lake; William Henry Neumann, Lewiston; Charles John O'Connell, New Rockford, N. D.; Robert Fairbairn Rodgers, Farmington; Henry Hay Scarf, Pipestone; John Henry Stadon, Minneapolis; Edwin Francis Stewart, Wykoff.

## THE NEW OFFICERS OF THE A. M. A.

It was decided to hold the next meeting of the American Medical Association in Saratoga Springs, New York. The following officers were elected:

John A. Wyeth, New York, president.

Alonzo Garcelon, Lewiston, Me., first vice president.

A. J. Stone, St. Paul, second vice president.

A. F. Jonas, Omaha, third vice president.

J. A. Dibrell, Little Rock, Ark., fourth vice president.

John F. Fulton, St. Paul, T. J. Happel, Trenton, Tenn., Dr. Grant, Denver, trustees for three years.

George H. Simmons, Chicago, secretary.

Henry P. Newman, Chicago, treasurer.

George W. Webster, Chicago, librarian.

George Cook, New Hampshire; John B. Murphy, Illinois; Philip Marvel, New Jersey; Louis H. Taylor, Pennsylvania; John L. Dawson, South Carolina; N. Fred Essig, Washington—judicial council for three years.

G. T. Comstock, Saratoga Springs, N. Y., chairman committee of arrangements.

## MILITARY SURGEONS.

New officers were elected by the military surgeons at their recent meeting in St. Paul, as follows:

President, Lieutenant Colonel John Van Renssaler Hoff, medical department, United States army; first vice-president, Brigadier General R. A. Blood, Massachusetts volunteer militia, retired; second vice-president, Sugeon General Walter Wyman, United States marine hospital service; secretary, Major James E. Pilcher, United States army, retired; treasurer, Lieutenant Herbert A. Arnold, assistant surgeon, Pennsylvania National Guard, re-elected.

The convention left the time and place of the next meeting to be determined by the executive committee. President Stone appointed the following committee to urge the repeal of the anticanteen law upon congress: General Cook, General Priestley, Major Seamon, Colonel Reed, Colonel Griffith, Major Clarke and Major Wright.

At the recent quarterly conference of the board of control and superintendents of the Iowa state institutions the question of prevention of the marriage of the unfit was given extended consideration. Dr. F. M. Powell, superintendent of the state hospital for the insane at Clarinda, read a paper on "Unsanitary Marriages," and there was much discussion. It was clearly pointed out, however, by Dr. the general sense of the superintendents and members of the board that the question should be taken up by the legislature and steps taken for state control of the marriage of the unfit. It was Powell in this paper and by others, that the legislature ought not to act without naming a commission of experts to examine the subject carefully.

The following young ladies received their diplomas of graduation from the Northwestern Hospital, June 20: Marion Thompson, Mary Edith Smith, Lili Alice Bradford, Beatrice McNabb, Helen F. Major and Helen Munson.

The South Dakota Medical Society, at their recent meeting in Huron, decided to meet next year in Scotland, and elected the following officers: Dr. C. C. Cross, of Yankton, president; Dr. Dugent, of Springfield, and Dr. B. A. Bobb, of Mitchell, vice-presidents; Dr. J. L. Stewart, of Irene, secretary and treasurer; Dr. H. B. Scofield, of Scotland, assistant; Dr. H. E .McNutt, of Aberdeen, and Dr. Brown, of Parkston, trustees. Dr. H. J. Rock, of Aberdeen, Dr. J. G. Parsons, of Brookings, and Dr. T. J. Wood, of Huron, were delegates to the St. Paul meeting of the American Medical Association.

The 21st annual bulletin of the Denver College of Medicine, the medical department of the University of Denver, indicates that the school is in a flourishing condition. The session of 1901-1902 opens Tuesday, September 10, the examinations for which commence on the Friday preceding. At the commencement exercises held May 13, 1901, the degree of Doctor of Medicine was conferred upon twenty graduates.

A case is on the calendar of one of the courts of Wisconsin that is a peculiar one to say the least. A man with an artificial leg married a woman without letting her know that he was not complete in his members. The result was that she deserted him and applied for a divorce. The result of the case will be watched with considerable interest.

Dr. Frederick Peterson, who was recently appointed by Governor Odell as president of the state commission for insane hospitals of New York, is a native of Minnesota. He was born in this state in 1859, of Swedish parents. Since his graduation at Buffalo in 1879, he has claimed New York as his home. Dr. Peterson studied several years in Vienna, Leipzig, Paris, Stockholm and London, giving particular attention to diseases of the brain. His works on medical science have given him at least a national reputation. He has also found time to translate several Swedish poems into English and to write poetry of his own with more than ordinary success.

The Eighteenth Annual Class Night exercises of the Minneapolis College of Physicians and Surgeons (Medical Department of Hamline University) took place at the Hennepin avenue M. E. church, June 3d, 1901.

There was a crowded house of friends of the graduating class and the school. Rev. Marion D. Shutter delivered the class address, the subject being: "Progress and Problems of Medicine." After remarks by Dr. Leo M. Crafts, dean of the institution, the graduating class repaired to the Nicollet House to partake of a banquet. The following is a list of the graduates:

Cum Laude, Swan A. Carlson; Grant S. Carpenter; Martin L. Goldberg, B.S.; P. H. Muss, B. A.; and William M. Theissen.

Joseph M. Allen, D. V. S.; Edgar R. Barton; Nels A. Biorn; W. D. Bloom; Paul H. Burton; Thomas Devereux; Charles W. Doran, B. A.; John M. Fox; Frederick O. Gronvold; Lauritz O. Kron; Clara M. Luther; Oscar F. Melby;; George B. Moore; Guy D. Murphy; Arne Oftedal; Emma J. Roberts; Edgar D. Spear; Axel W. Swenson; and Elizabeth Woodworth.

Dr. Victor Malmgren of Ishpeming, Mich., has been appointed mine physician at the Oliver Iron Mining Company's mine at Mountain Iron to succeed Dr. C. B. Eby. Dr. Malmgren has practiced medicine in Northern Michigan for a number of years.

"Synthol" is a chemically pure substitute for absolute alcohol. It may be used for every purpose for which alcohol is used except for internal consumption. Being chemically pure it does not have as much odor as absolute alcohol from grain or wood. It is perfectly free from color, is non-irritant to eyes or skin and has ten to fifteen per cent more solvent power than ordinary alcohol. As a killing, fixing or hardening agent it is in every respect equal to the best absolute alcohol and can be used as a substitute for it in the preparation of stains, reagents, etc. As a preservative it is superior to any alcohol, as alcohol becomes tinged with color on exposure to light, while synthol retains its absolute colorlessness under all conditions.

The wife of a farmer living near Wichita, Kansas, inhaled cottonwood pollen in May, and immediately commenced to sneeze. The fit lasted for eighteen hours, when she expired, although medical aid was at hand.

The rats at the city hospital of Cincinnati are now under a plague which promises to rid the institution of their presence. Recently one of the doctors employed in the new laboratory discovered that a disease which assumed epidemic tendencies had broken out among a collection of rats which were being held for experimental purposes. Further investigations were made to determine the cause of the trouble, and from the liver and spleen of the affected animals a bacillus was detached which proved on inoculation extremely fatal to both rats and mice. Nearly every rat in the establishment seems to have caught the disease, and they are dying off in large numbers. Those affected have a peculiar sniffle or cough, which may be heard from their haunts before the disease has progressed sufficiently to make them take to the open in search of fresh air and water.

According to an exchange rag-time music will take a new lease on life if the recent discovery of a Paris dentist is true. When he puts the patient under the influence of gas he connects his ears at the same time with a phonograph discoursing lively music. This affects his psychic centers so completely that in trying to find out just where the syncopations come in he forgets the other delusions of the gas, and the tooth is gently released from its cerements of clay without any struggle of the nervous system. The idea has seemed of enough value to be mentioned by an eminent French physician as an agency in the use of anaesthetics, and thus avoiding the excessive application of ether.

# BOOK NOTICES.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A Practical Exposition of the Methods, Other than Drug-Giving, Useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College, etc. Volume 11, ELECTROTHERAPY, by GEORGE W. JACOBY, M. D., Consulting Neurologist to the German Hospital, New York City; to the Infirmary for Women and Children, etc. In Two Books:—Book II, Diagnosis; Therapeutics. Illustrated. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. Price, eleven volumes, $22.00 net.

This book is a continuation of the subject of electrotherapeutics, having such an auspicious beginning in Book 1, mentioned in these columns in the last issue. Dr. Jacoby handles his subject with a facile pen, and presents a completed work that surely will be found indispensable to the physician wishing to treat disease without the use of drugs.

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FAVORITE PRESCRIPTIONS OF DISTINGUISHED PRACTITIONERS, with notes on Treatment. Compiled from the published Writings or unpublished Records of Dr. Fordyce Barker, Roberts Bartholomew, Samuel D. Gross, Austin Flint, and many others. Edited by B. W. Palmer, A. M., M. D. Seventh Edition. New York: E. B. Treat & Company, 241-243 West 23d street. Price $2.00.

The seventh edition of the above work has been issued, and the demand for the book is a sure guaranty that its usefulness is appreciated. The matter contained in this condensed form, compiled after careful examination from the broad resources of information, furnished by many distinguished teachers and writers, cannot fail in being of great aid to the busy practitioner seeking the best authority for prescribing for diseases he has diagnosed.

PULMONARY CONSUMPTION, PNEUMONIA, AND ALLIED DISEASES OF THE LUNGS; their Eitology, Pathology and Treatment, with a Chapter on Physical Diagnosis. By Thomas J. Mays, A. M., M. D., Professor of Diseases of the Chest in the Philadelphia Policlinic; Visiting Physician to Rush Hospital for Consumption. Illustrated. New York: E. B. Treat & Company, 241-243 West 23d street. Price $3.00.

In the above work Dr. Mays aims to establish the proposition that the cause of phthisis is chiefly in the nervous system, and that the tubercle bacillus has been overrated as to its originating effects in the disease. The doctor was first impressed by the great number of consumptive cases coming from neurotic families, and since 1885 he has been pursuing this line of investigation with the result that he is fully convinced of the correctness of his theory. It may be said that neurotic cases, as a rule, show a lower vitality than the normal standard of families with a good nervous system, and that phthisis is more liable to attack successfully the cases of feeble resistance to its causes, whether from inherited weaknesses or from external exposures; but the doctor makes a strong exhibit of proof of his position by the history of many cases where the pneumogastric nerves were injured or their functions disturbed by diseases, tumors, etc., and consumption of the lungs has followed.

Statistics of health resorts for consumptives, as quoted by the doctor, do not prove the contagious character of phthisis as many now believe and fear, but rather the contrary, as very few doctors or nurses constantly exposed in the care and treatment of these patients have died with the disease, and most of these were affected previously to their exposure. If the disease were contagious to the same degree, for instance, as smallpox, to those unprotected by vaccination, or scarlet fever, or diphtheria, the whole creation would cough and groan together in hopeless extinction. Yet it is prudent to avoid all unnecessary exposure and use every known preventative to the spread of the disease, both among animals and the human family.

We can commend the book to the careful attention of the profession as one worthy of study, and it will be found interesting and highly useful even if the reader is not thoroughly convinced of the complete soundness of all the author's conclusions.

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## CONSUMPTION CONTAGIOUS AND CURABLE.

Modern medical science has established the fact that consumption is a contagious disease and must be treated as such, and also that if taken in its earlier stages, it is easily curable.

In the American Monthly Review of Reviews, Sylvester Baxter discusses the status of the disease in an article on "The Winning War Against Consumption." The foundation for the modern treatment of tuberculosis was laid when Prof. Koch discovered the bacillus tuberculosis in 1882. It was found that the expectorations of a patient during twenty-four hours contained billions of these germs. Nature, it was discovered, has provided the healthy person with weapons against their attack. They enter the system chiefly through inhalation of dust. The secretions of the nose are their deadly enemy. But if they get past the nostrils alive, the vital forces of the system are usually sufficient to overcome them. Post mortem examinations show that the majority of people have had a touch of tuberculosis, but it has usually been cured by the action of the system without medicine.

The great danger to persons constantly exposed to the attack of an unusual number of germs is that they may find lodgement when the system is weakened by illness, fatigue or other cause of low vitality. At such times the bacilli may conquer the defenses provided by nature. Preventive measures, therefore, are of the greatest importance. The patient must be impressed with the necessity of disposing of his expectorations so that they shall not infect others. The agitation against spitting in the streets and in public conveyances has been of service in the fight against consumption.

The demonstration of the curability of consumption has been made in Germany. In that country the insurance of the lives of working people is compulsory. The insurance companies are watchful of their interests. When the first symptoms of tuberculosis appear the patient is at once sent to a sanitarium for treatment. Reports claim 80 per cent of cures with an average of less than three months treatment.

Germany takes the lead in the establishment of hospitals for the treatment of tuberculosis, but other countries, notably Norway, are following.

It is noticeable that in treatment of the disease pure air is one of the indispensables, even if the patient has to be exposed to a wintry atmosphere.—Duluth News-Tribune, June 10, 1901.

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With a live bug as big as his thumb nail in his side, Peter Cloutier of Danielson, Conn., suffered for three months from what he thought was an abcess. Recently the insect came from its queer prison, fighting vigorously. Doctors are anxiously awaiting the results of an investigation made by Dr. Franz Pfaff of Harvard Medical School, to whom the bug was sent for examination. "It was three months ago when I first felt a little lump in my right side," said Cloutier. "I thought at first it was a boil. It continued to grow and to pain. Then at times I felt a queer itching and sharp pains in my side as though something was moving under the skin. The lump grew nearly as large as my fist. I did not consult a physician, but some of my friends told me I had an abcess. A week ago the lump became inflamed. As I examined it out crawled a bug that looked half like a potato bug and something like a spider. I took hold of it with my fingers and it fought viciously with its twelve legs and tried to get away from me." The creature had the color of a wood-tick, being grayish in hue, with twelve legs, a body about the size of a bean, and the appearance of a spider.

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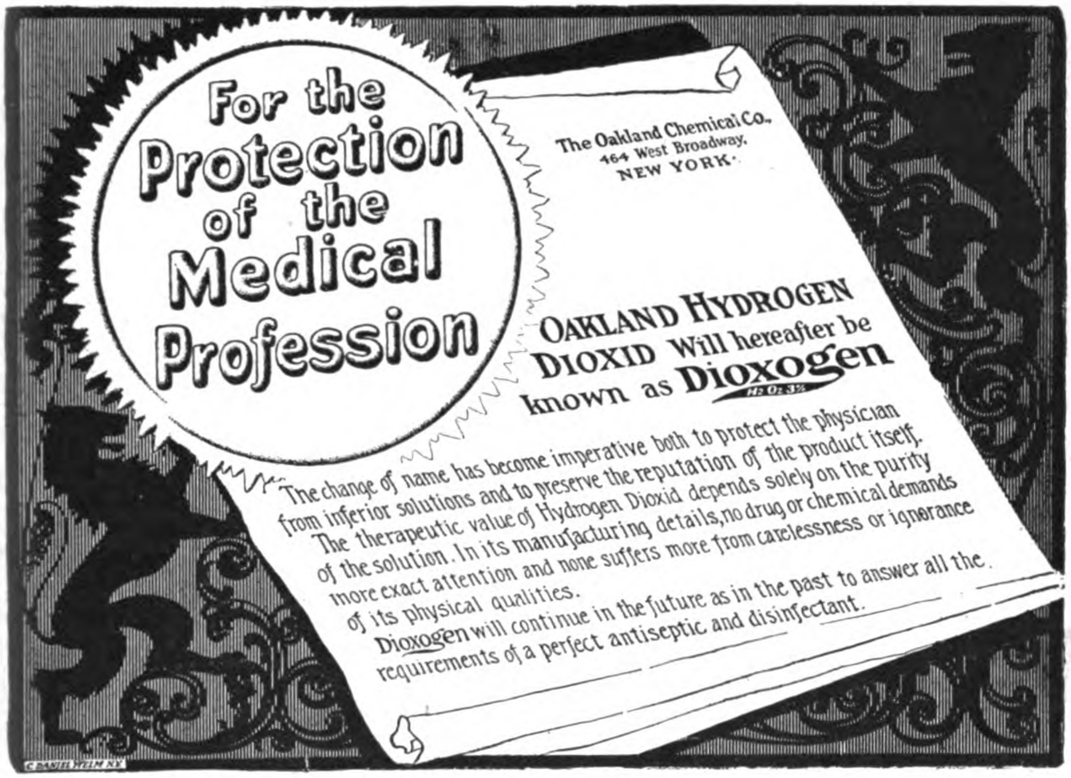
The Roman Catholic archbishop of Montreal has forbidden the members of that church from countenancing cremation in any way.



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## THE MEDICAL EXHIBIT AT ST. PAUL.

It was the intention to give a full account of the great medical exhibit in St. Paul during the various medical conventions which met in that city in June, in this number of the Medical Dial, but for the purpose of making the account more complete the matter is deferred until the August or September number.

## WYETH'S NEW PREPARATIONS.

We have had a pleasant visit from Mr. Truman Griffin, representing John Wyeth & Brother, of Philadelphia. Among the new preparations being introduced to the profession by this firm are: "Wyeth's Prepared Food of Malt with Cereals;" "The Elix. Glycerophosphates of Soda and Lime," the new reconstructive; "Albeuthyptol," a nasal and throat spray and antiseptic wash; "Infants' Glycerine Suppossitories," especially adapted for children, being slender and easily introduced; and the "Neutral Solution of Peptonate of Iron and Manganese combined with Arsenic," etc. All of these preparations are being well received by the profession, as they seem to meet the requirements for which they are intended.

## LITERARY ANNOUNCEMENT.

The Quarterly Journal of Inebriety will publish in the July number a symposium of the most authoritative scientific papers, recently read before medical societies in this country and Europe, on the physiological and pathological action of alcohol. These papers will contain the latest facts and conclusions, on the action of alcohol as a beverage and medicine, and be of absorbing interest to every physician and person interested in this topic. A large edition will be issued and extra copies will be mailed to any address on the receipt of 75 cents in stamps or currency. The Journal is a large quarterly established in 1876, and is the only journal published devoted exclusively to the scientific study of inebriety and alcoholism. The subscription is two dollars a year in advance, published in Hartford, Conn. Address T. D. Crothers, M. D., Editor, Hartford, Conn.

## A LABORATORY FOR POISONS.

It's a wonderful laboratory, this human body. But it can't prevent the formation of deadly poisons within its very being. Indeed, the alimentary tract may be regarded as one great laboratory for the manufacture of dangerous substances. "Biliousness" is a forcible illustration of the formation and absorption of poisons, due largely to an excessive proteid diet. The nervous symptoms of the dyspeptic are often but the physiological demonstrations of putrefactive alkaloids. Appreciating the importance of the command, "Keep the bowels open," the physician will find in "Laxative Antikamnia & Quinine Tablets" a convenient and reliable aid to nature in her efforts to remove poisonous substances from the body. Attention is particularly called to the theapeutics of this tablet. One of its ingredients acts especially by increasing intestinal secretion, another by increasing the flow of bile, another by stimulating peristaltic action, and still another by its special power to unload the colon.

## REPRESENTATIVES OF GUDE'S PEPTO-MANGAN,

(The M. J. Breitenbach Co., 53 Warren St., N. Y. C.), most cordially invite all of the Medical Profession when visiting New York City to make their office a business home.

## CORRECT THE NUTRITION.

Thousands of cases die every year, and thousands of others pass into hopeless invalidism, simply because the first perversions of nutrition are not corrected by supplying the system in abundance with the appropriate tissue food. As lime and soda are so abundantly found in animal tissues, and are necessary to unite with the organic elements in the formation of new cells, it must be evident that most of the departures from health are due to a lack of the proper proportion of these elements supplied to the tissues.

McArthur's Syrup, in which phosphorus, lime and soda are incorporated in their most assimilable form, hypophosphites, will supply the needed elements

HE WHO FAILS to grasp the trend of the times is indeed a back number, for this is the beginning of a wonderful age in the world's history. We all thought developments in the past were remarkable, but those of the near future will undoubtedly be marvelous and far beyond the prophesies made by those who had the courage to formulate them. Mr. Henry Clews, of New York City, made one in December last, that, in the light of very recent events, is a vision of the future of which we are beginning to get a glimpse. "The present wonderful showing," said Mr. Clews, "made by American railway and industrial corporations only foreshadows the immense activity to come. The entire world is entering upon an era of commercial progression and prosperity that will far surpass all present records. National conquests will be made henceforth by the weapons of commerce rather than by those of war. The great increase in the gold product of the world is the moving power, and the faster it is brought up from the bowels of the earth the greater will be the impetus of business ventures and developments. The future will be brilliant in inventions and discoveries, and in the advancement of gigantic business enterprises without limit as to sphere. We are to witness a race of mankind for supremacy in the world's markets. The 'open door' will be the policy of all the great powers. The completion of the Trans-Siberian Railway points to the development of the heretofore almost unknown resources of Russia. Upon the ending of the Transvaal war we shall see a tremendous sweep of civilization into Africa, which means the opening up of its fabulous resources. Who can gainsay that the results will be marvelous? There is not a corner of the globe where they will not be felt. Such are the conditions prevailing in this closing year of a wonderful century. The prospect for the coming one is indeed dazzling."

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The Rio Tinto copper mine in Spain has been worked almost continuously for over 2,000 years, and next to the Almaden quicksilver mines in the same country has the longest recorded history of any mine in the world.

FINDS FORTUNE IN MINING STOCK. C. M. Woodbridge, of Woodbridge brothers, piano dealers of Omaha, last summer came across an old note for $600 given by a man living in the Black Hills for a piano purchased of Woodbridge Brothers so long ago that the note was outlawed. But being very anxious to secure some money at that particular time, Mr. Woodbridge went to Deadwood. He met his debtor and found him disposed to liquidate the debt if it were in his power to do so, which it was not. He did pay $150 on the note, however, and then said:

"Mr. Woodbridge, I have a lot of mining stock here which is now worthless, but some day perhaps you might realize a few dollars on it. Anyway, it is as good as my note, for I do not know when I can ever pay another cent on it. Suppose you take the stock and call it square."

The piano man had no hope of ever receiving another dollar on the note. He took the mining stock. It was not worth one cent on the dollar. Within a few weeks after Mr. Woodbridge returned home, however, a vein of gold was struck in the mine in which he held shares. First he was surprised to hear that he might be able to dispose of them at five cents on the dollar. Then came the intelligence that their value had doubled. Today they are worth fifty cents on the dollar. Mr. Woodbridge has $75,000 worth of them, and has sold others amounting to several thousand dollars in value.—Wallace (Idaho) Mining Journal.

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ONE OF THE MOST ASTONISHING MENTAL TONICS may be had by picking up most any issue of a weekly paper published in a strictly mining district, and reading it from the head of the first column of the first page to the foot of the last column of the last page. Every line from editorial to pay local will be found bubbling over with original individuality.

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The sum of $300,000,000 pure gold, if in the shape of a ball, would in such globular form represent a sphere a little over 12½ feet in diameter, giving the gold a value of $20.671834625 per ounce.

## SANMETTO IN ENLARED OR ATROPHIED PROSTATE, WITH URINARY DIFFICULTIES.

The cases in which I have had occasion to use Sanmetto are quite numerous and varied, both acute and chronic, and when indicated have produced very satisfactory results, both to me as well as to the patient. For a period of three years Sanmetto has been my sheet anchor in the large majority of cases of prostatic and urinary difficulties, both in enlarged prostate as well as atrophied conditions. I may sum up the whole category of prostatic and urinary ailments, and say in my experience that Sanmetto covers more general indications and is more reliable in my hands than any other remedy. I use and have great confidence in Sanmetto.

Toledo, O. J. S. Fisher, M. D.
1876 Pulte Med. Col., Mem. Nat. Homeo. Med. Assn., Mem. Ohio State Med. Soc. & N. W. Ohio Med. Soc. & Toldeo Med. Soc.

## DR. RICHARD EICHE,

Of Cleveland, Ohio, writing, says: "It is doubtless of great value to the medical profession that we have a remedy at our command like Sanmetto. I have used this remedy with much success in irritation and inflammation of the neck of bladder, in prostatitis, in nervousness arising from irritation of uterus, ovaries and testes, in incontinence of urine and in old cases of gonorrhea and gleet. This remedy also powerfully influences the reproductive apparatus. It is not here my intention to waste space in pathological discussions, but will say that Sanmetto is a weapon in the hands of the physician, and a backbone to the worn and old of both sexes."

## SANMETTO IN UTERINE CONGESTION.

Dr. M. J. Halsey, of Fowler, Ind., writing, says: "I have found Sanmetto perfectly satisfactory and I take pleasure in recommending it in cases of uterine congestion, having tried it and proved its efficacy in such a case. I have placed it in the foremost of my list of favorite remedies for congestion of any mucous membrane in the body."

## AN ADDITION TO OUR NEXT MATERIA MEDICA EARNESTLY RECOMMENDED.

For many years I have prescribed Sanmetto extensively, and I should assassinate Truth were I to assert that, in a single instance, the results were otherwise than wholly satisfactory. There is not a form of genito-urinary inflammation wherein I have not used it. I can sincerely and earnestly recommend its addition to our next Materia Medica.

A. Mazetta Rowe, M. D.
Glasgow, Ky.

## HOW A WESTERNER VIEWED THE MEDICAL CONGRESS AT ST. PAUL.

The Anaconda Standard of recent date prints the following startling account, by special service, of certain happenings in the medical convention in St. Paul which seem to have escaped the notice of the local papers:

"St. Paul, June 8.—To-day's session of the American Medical Association was occupied with spirited discussions covering the whole field of medicine and surgery. Dr. Sawyer, of Chicago, reported the interesting case of a man who was so injured in a railroad wreck that it was necessary to remove both legs at the hip, the left arm at the shoulder, the left eye and a portion of the left lobe of the cerebellum. The patient had no sooner recovered from these operations than he fell ill with appendicitis, necessitating the immediate amputation of the affected part.

"Then the patient's convalescence was satisfactory, and in a few weeks he was able to resume his trade, that of a cigarmaker. His remaining arm and hand gradually acquired marvelous strength. With that arm he was accustomed to take exercise on the horizontal bar, sending his body revolving around the bar with the velocity of the driving wheel of a locomotive.

"Unfortunately, the next year the patient cut his hand, and blood poisoning occurring, it was found necessary to perform several magnificent operations in quick succession, first at the palm, then at the wrist, then at the elbow, and finally at the shoulder. The recovery of the patient seeming somewhat slow and un-

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certain, Dr. Sawyer prescribed bromide of potassium, chloride of sodium, nux vomica, chloral hydrate, tincture of logarithms, morphine sulph., fiat justita, ruat coelum, valerianate of ammonia, oxalic acid, dover's powders, iodine, ipecac, strychnine and Newbro's herpicide.

"In 12 months' time the patient was suffering from nothing more serious than acute stomach derangement, and the stomach was accordingly removed, in one of the most brilliant operations of the series. The patient was now, though somewhat reduced in weight, in excellent health and in as good a state of preservation as could reasonably be expected. He had not had a single operation in 10 weeks. His remaining eye would probably have to go, and also a considerable portion of his liver and kidneys, but as long as his heart and lungs were left intact the doctor thought the vital spark could be kept there.

"Dr. Cutter, of San Francisco, inquired what the patient did for exercise.

"Dr. Sawyer replied that he had rigged up an apparatus somewhat similar to the one used by bartenders in the manufacture of milk shakes and the like. The patient's wife, or one of his children, turned the crank, and the patient himself, securely strapped to the seat, was bobbed up and down at the rate of 144 bobs a minute—higher speed the doctor did not consider advisable. Every day, too, his wife took him out for an airing in a baby carriage built for two, their lusty six-months-old baby sitting in the other end and screaming with glee as he entwined his hands in his father's whiskers and pulled the old man this way and that until the mother interfered in the game and put the occupants of the vehicle to rights again.

"Dr. Squillman, of Anaconda, inquired if the shaking apparatus could not be so altered as to run by electricity.

"Dr. Sawyer said he had tried that very thing, but the trouble was that the patient's wife and children would go off and forget all about disconnecting the electrical wire, and in the course of a few hours the patient's breath would be nearly all shaken out of him. Dr. Sawyer did not consider such violent exercise for a protracted period of time good for the patient. If kept up daily for a few months it would probably result in cerebro-spinal meningitis, and the doctor was not sure that the removal of the spine would be attended with favorable results. It might, indeed, prove fatal.

"Dr. Browning, of Philadelphia, read a paper on "Ethics of Grafting," dwelling especially on his celebrated bill for $190,000 against the Chris Magee estate. The doctor saw no reason why the physician's graft should not be so gauged, like the lawyer's, according to the size of the estate. Through the prejudice of the courts in favor of the legal profession physicians had always got the worst of it. It was necessary to educate the people to a broader, juster, more equitable system of wholesale looting. The hoggishness of lawyers is one of the most alarming symptoms of our effete civilization, and, unless the medical profession asserts itself and gets its full share of the loot, society's relapse into savagery cannot long be delayed."

A census of the consumptives in New York state is in progress by Dr. Daniel Lewis, commissioner of the state board of health. It will be the first census for the purpose of learning the number of consumptives in the state as far as possible, and the revealing of other facts relating to the disease. It is expected that this enumeration will throw light on the question of what the state should do for the care of those within its borders who are afflicted with consumption and who cannot afford to pay for treatment at the private sanitoria.

There comes a report from Atlanta, Ga., that a lad thirteen years old was bitten by a supposed rabid dog. His father took him to the Pasteur Institute, where the wound, a small one, was not seriously considered. The nervous parent advertised for a madstone. Two he tried without avail. The third one, which is small in size—about as large as the end of a man's finger and of a reddish brown color—was first boiled in sweet milk. The wound was slightly abraded and the stone applied to it. It stuck fast as soon as brought into contact with the flesh, and soon it was filled through about half its thickness with a greenish

# To Have

Had an opportunity to secure stock in this company and not to have taken advantage of the same is a matter you will always regret.

# And to Hold

Our stock and realize the splendid benefits to be derived therefrom will please you.

Our properties are not under bond; we own them and have the deeds.

# What Are We Doing?

Operating, Developing and Improving our Properties, and have been every day since January 30, 1901. WE ARE WORKING IN ORE, which is being taken out of the shaft and drifts each day, and placed in the dumps at millsite.

## Assays by Dr. C. W. Drew, Minneapolis.

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| **West Drift--50 foot level--Copper** | **8.75 per ct.** |
| **Average of vein matter on dump** | **5.95 per ct.** |
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substance, and dropped off. The portion of the stone in which the poison had accumulated turned a dark green, and it was necessary again to boil it in sweet milk—a process which removes the poison. The second time it was applied to the wound it remained fast nearly seven hours before dropping off. It was again treated and applied for the third time, remaining fast to the flesh for four hours. The boy recovered.

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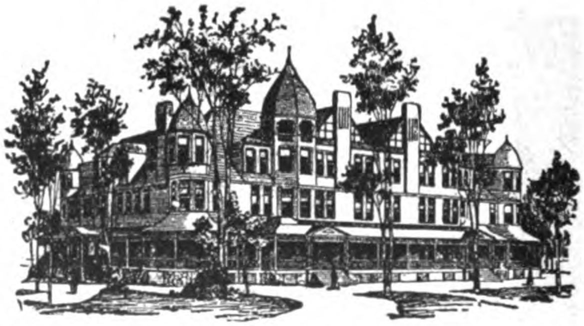

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Vol. III MINNEAPOLIS, MINN., AUGUST, 1901 No. 8

## WHAT IS THE PROPER TREATMENT FOR HEAT EXHAUSTION AND COUP DE SOLEIL?

The prolonged and unusual high temperature that has prevailed so extensively throughout this country for the last three weeks has caused the death of many individuals and prompts us to ask what is the most rational treatment for persons suffering from over heat, and is commonly known as coup de soleil, or sunstroke? These expressions are not synonymous as many suppose. The state of heat exhaustion is the result of high temperature accompanied by physical exertion, walking, running, or some other form of muscular work, while coup de soleil may be the result of exposure to the sun's rays without exertion, or more frequently without sunlight during high temperature, natural or artificial, and a moist atmosphere; indeed these attacks are frequently in the night and while the patients are at rest.

The treatment demanded by these two different conditions is entirely distinct, and widely separated in effect. Whatever is done must necessarily be immediate to be remedial, and no time wasted in seeking for what might be better means of treatment if time were allowed. When the patient is suffering from over heat, and suddenly falls unconscious, or partially so, his face and external surface will be pale, the breathing rapid and shallow, and the pulse quick and feeble. The surface of the body is cold, and the temperature lower than normal, contrary to the general impression. Such a case does not need cold applications, but rather warm if obtainable—cold will retard recovery and endanger life. The lungs are engorged with blood, while the brain is anemic from the feebleness of the heart's action. In this condition the patient must be placed in the horizontal position, the head lowest, and if the breathing ceases resort must be had to artificial respiration. Stimulants must be given by mouth if the patient is able to swallow, and if not, brandy, atropine, and strychnine hypodermically, stimulating injections per rectum, and ammonia to nose as in cases of ordinary faintness—no blood letting is advised in these cases.

The condition of cases of coup de soleil is produced by hot, moist atmosphere, such as prevails in tropical lowlands and in laundries and other places where men are obliged to work in damp, hot air. In these cases the temperature is higher than normal, and in fact there is fever—thermic fever, so-called—and the treatment must be directly opposite that recommended for heat exhaustion. There is congestion of the brain and meningitis may follow. Hence cold applications to the head and surface are in order. The bodily temperature must be reduced by cold baths—ice being introduced to the water if necessary. If there are convulsions hypodermic injections of morphine may be given, and antipyrine. If there is much congestion of the brain, indicated by the countenance and the condition of the eyes, venesection may sometimes be of advantage. After recovery there will be constant danger of a relapse if the causes are repeated, and great care must be exercised to avoid extreme heat and exposure. Pain in the head will be a prominent symptom, and a loss of normal vigor is not unusual for months after apparent recovery.

NEW PROGNOSTIC SIGN IN TYPHOID. Anything new in relation to typhoid or its treatment cannot fail to be of interest to the profession. The Medical Age reports that Waldvogel, in recent researches, has discovered that the congelation point of the serum in cases of typhoid fever is very much increased, and that if this elevation of the cryosocopic point does not occur, the particular case will inevitably result in death. The conclusions were based on investigations conducted in twenty-four cases of typhoid fever. The normal congelation point of serum is 0.54. The highest points observed by Waldvogel were in two convalescents, 1.68 and 1.28; and the lowest congelation points in three cases, which died, 0.65, 0.63, and 0.54. Waldvogel thought the kidneys might be at fault, and attributed these changes to retention uremia, but special study proved these patients were not uremic and latent nephritis had nothing to do with the state of the blood; but he was convinced that the elevation of the congelation point can only be due to the presence in the blood of a typhoid antitoxin.

"The conclusions from these researches are to the effect that there is always in typhoid patients an elevation of the cryoscopic point of the serum, and that this elevation is not due to a thickening of the blood by depletion of the water through diarrhoea, nor to retention of the chlorides, nor yet to venal insufficiency."

The following points concerning these investigations are:

1. That the elevation in the cryoscopic point of serum is not attributable in all cases to uremia.
2. In typhoid fever the elevation of the cryoscopic point of serum is related to the formation of antitoxins.
3. If, in a given case of typhoid fever, the cryoscopic point falls below normal and is situated in the neighborhood of 0.70, the prognosis becomes very grave.

# Events in the History of American Surgery—A Brief Review.

BY FRANKLIN STAPLES M. D., WINONA, MINN.

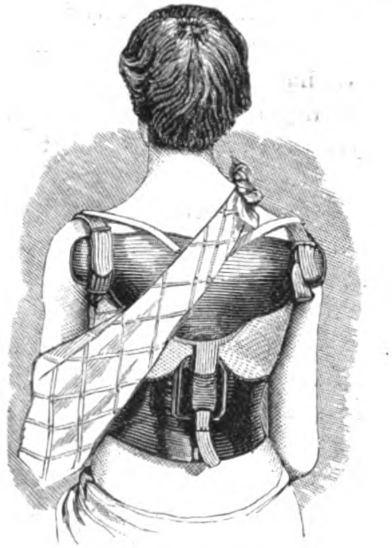
(In two parts:—Part II.)

First, Concerning a Common Fracture:

Various means have been brought into use at different times for restoring parts to position and preventing deformity in cases of fractured clavicle. Among those which have been used with more or less success have been the figure-of-eight bandage passed around the shoulders and across the scapulae, the elbow and forearm sling, the axillary pad as a fulcrum, with the arm for a lever, and adhesive strips across the back and around the shoulder and arm; these for service in holding the shoulder upward and backward, and thereby allowing the fractured ends to fall into place.

About the middle of the century, just past, it was the custom at the old New York Hospital, under Surgeons Gurdon Buck and John Watson, to treat ordinary cases of this fracture without the use of apparatus or bandaging to any extent. The patient was placed on his back on a firm mattress, and compelled to lie still in this position. The arm of the injured side was kept motionless and well down on the bed beside the body. The weight of the chest and the upward pressure of the mattress held the scapulae firmly in place, and, as the shoulders fell backward by their own weight, the fractured ends of the clavicle would naturally fall into place. Continuance in this position was required until union was secured.

The method of securing fixation of the scapulae in this treatment of the fracture, and of causing extension of the clavicle by holding the shoulders back, suggested the plan of obtaining a steady and firm support of the parts in this position by means of a splint placed across the back, with the shoulders drawn to it. (See illustration.)



CLAVICLE SPLINT.

The splint is carved to fit the parts on which it rests, and is lightly cushioned. The shoulders are brought back to the splint by lightly padded bands attached to the same near the ends. It is held in place by a light metal strip, which passes through an adjustable attachment on its back, downward to a broad belt which is buckled around the pelvis. Aside from the splint apparatus, the ordinary suspension sling elevates and supports the arm.

This apparatus is simple in construction, and when properly made and adjusted, is worn with comfort, and does not require the patient's confinement.

In Orthopedics:—

A few words, historical and otherwise, concerning orthopedic surgery in this country in years not long gone by.

First, Talipes: Soon after the middle of the last century advances began to be made in different departments of orthopedic surgery. Good men became engaged in the specialty. Dr. William Detmold, a prominent German surgeon of New York, delivered each year a special course of lectures to the students of the College of Physicians and Sugeons of that city on the subject of club-foot. At the same time the late Dr. Louis Bauer was making a specialty in this department, and held his clinics at his private hospital in Brooklyn. Dr. Bauer spent the later years of his life in the city of St. Louis, and was for many years dean of the faculty of the St. Louis College of Physicians and Surgeons.

Another New York surgeon, whose part in building up the department of orthopedics in surgery is known to all, was the late Dr. Louis A. Sayre. His work in this direction became known about the time of the opening of the Bellevue Hospital Medical College, in 1861; in which institution he became professor of orthopedic surgery. Because of original work and improvements made in certain directions, the name of Sayre has been given to various orthopedic appliances. He taught the better way of making the plaster bandage; making it strong, light, and even, to some extent, elastic. For the interior of the country, Dr. David Prince, late of Jacksonville, Illinois, did good work in the earlier times of orthopedics. His work on "Plastics and Orthopedics" is in our medical libraries.

These names and works are mentioned here, not as of men who at any time had the exclusive right of way in orthopedics, but as among the early teachers, in this country, of what has become a most important part of our general surgery.

A single word concerning a matter of practice: Several years ago, the practice of tenotomy, in the treatment of talipes in any form, was practically opposed by a London surgeon, who claimed that traction, without the division of tendons or other tissues, was sufficient for all cases. It is known that the experience of the great majority of practitioners has led them to think otherwise. In infancy, when the skeleton of the foot is more cartilaginous than osseous, and structural deformity of parts has not become fixed, treatment by means of a traction shoe or bandage may be made successful. In the majority of cases brought to the surgeon, conditions are otherwise, and operative measures are required, and are for the best. When the division of a tendon has been properly done, subcutaneously, with the slender tenotomy blade, the tendon sheath not being wholly divided, the result is likely to be a lengthening of the tendon, and not a destruction of continuity. An advance was made a few years ago in the treatment of a class of old cases, in which, by removal of a part of the bony structure and performing the necessary tenotomy, the foot could be brought quite completely into normal shape and position. Careful asepsis in operating and in subsequent care is always an important aid to success.

In Abdominal Section:—

A most notable event in the history of surgery in this country during the century was that of the performance of the first ovariotomy, by Dr. Ephraim McDowell in the State of Kentucky. It is said that Dr. McDowell had received the instruction at the University of Edinburgh which led him to undertake the operation. The knowledge and the courage that caused the attempt, and the skill which made it a success, have justly immortalized the name of the surgeon. It was before the time of practical work and experience in any form of abdominal surgery, and before the knowledge of ways and the existence of means which, in later times, have contributed so largely to the success of such procedures. The time of McDowell's operation was as near the beginning of the century as the year 1809.

Dr. Nathan Smith, Professor of Surgery in Yale College, did the second ovariotomy in this country, in a Vermont town in 1822; this without knowledge of the previous work of McDowell.

Professor Edmund Randolph Peaslee, late of New York, was the author of the first work on ovariotomy written in the English language. The title was "Ovarian Tumors, Their Pathology, Diagnosis and Treatment." The work was published in New York in 1872. Professor Peaslee is remembered as a learned and able teacher. His excellent work embodied all and more than its title indicated, and its practical instruction is complete in the knowledge of its time.

The advance in this department of surgery of late years, like that in all others, has been largely the result of the coming of modern asepticism into surgical practice. An account of the means, with the character of the same, that have principally contributed to the success in the surgery of ovarian tumors may be given in a word as follows: An operating room constructed for the purposes of major surgery; a clean operator, attendants, instruments, and appliances; a clean atmosphere, with raised temperature, and free from germ-bearing dust. In short, a freedom from all things, visible or invisible, that might cause wound infection. These, with clear heads and careful hands, are the essentials of the good work of to-day. The advantages of modern asepsis appear in two principal directions: First, by this means the danger of fatal infection from external sources is greatly diminished; and, second, by the use of the same we may safely enter parts of the body the access to which was forbidden in former practice, and be able to prevent a fatal result by the timely removal of causes. In laparotomies we may now completely close the abdominal incision, as a rule; no external drainage being necessary. Sutures and ligatures are rendered harmless by means of thorough asepsis, and are allowed to remain.

This brief mention of material advancement, and of the means thereof, in a single department of surgery, is made, not alone for what is stated, but as illustrative of what is practically true in all departments of operative surgery at the present time.

Modern Asepticism:—

These brief notes of certain minor and major steps in the advancement of the science and art of surgery in this country, are made of a part only, but may be suggestive of what belongs to the greater whole. At the beginning we mentioned the advent of anesthesia as one of the great events of the century in the domain of medicine and surgery. We may now give no second place to the coming of asepticism into medical and surgical practice in this modern age. This has resulted largely from what has transpired in the development of the modern science of bacteriology. The growth of this department of practical science has had the effect to move the world in the direction of physical cleanliness and purity; and in this has laid the foundation for much of the structure of modern medicine, both preventive and curative. For right of possession in this we may look to no single country or people. The army of scientists who have had and are having their parts in bringing to light the facts of this science and in showing their practical importance, are found in all nations. It is the progress of the world.

# Can Summer Complaint Be Prevented, and How?

By Louis Fischer, M. D.
Visiting Physician to the Willard Parker and Riverside Hospitals of New York City, Etc.

The greatest problem in medicine is not the treatment of disease, but rather, how can we prevent disease? Every physician knows that carefulness in feeding has done much toward the prevention of diseases which are favored by the depressing effects of summer heat. What is true regarding this depression as applied to adults is especially true in children. A child is more easily affected by the external influences of cold or heat than is an adult. Children offer less resistance, owing to physiologic conditions. The assimilation of food is different in children, and hence the individual conditions should be sought out before a distinct diet is prescribed. The latter remarks apply to those children whose normal development of the digestive functions form no barrier to the proper absorption and assimilation of food required at its particular stage of development. The most trying period is that one in which the food is absolutely liquid, and hence greater care must be exerted during the first year of an infant's feeding. We must be equally careful when a change from liquid diet of milk, or milk and broth, is made to one of solids or semi-solids.

Broadly speaking, the first two years of an infant's life will form the foundation for the whole future of that particular individual. If the child has been properly started, then we can expect normal functions from normal organs. If it has not been properly started, then we must not be surprised at finding diseases cropping up which are the result of imperfect development during infancy.

That such diseases may be very serious can be inferred from the fact that rickets, which will always originate dur-the milk feeding, will so damage the bones and muscles, in fact the whole frame, that all efforts to eradicate its results may be fruitless. In other words, rickets, when once developed, remains. Rickets usually paves the way for diseases of the lymphatics, for skin diseases, and, in fact, for all diseases common to adult life. Tuberculosis in adolescence usually owes its origin to a rickity state in infancy, for "the development of the disease can be traced to a foundation originating in rickets."

It behooves us, then, to weigh carefully all the conditions and all the factors originating in a faulty diet. Too much attention cannot be placed on the method of feeding, and hence the importance of the same as a means of preventing "The Summer Diseases of Infancy and Childhood" will be here considered.

First of all, the infant requires a regular interval in its feeding. In spite of what has been taught and what is generally known, we find that mothers will yield and weaken when the infants cry, and nurse the baby much oftener than is required for its proper nourishment. It is therefore an important factor to apply the general rule that the child should be nursed:

During its first month, once every two hours, and no oftener.

During the second month, every two and a half to three hours.

From two to four months old, every three hours.

From four to six months old, every three hours commencing at six A. M. and ending at nine P. M.

After nine months old, every four

hours, commencing at 6 A. M. and ending at 10 P. M.

It must be remembered that this general rule is applicable to breast feeding from the infant's own mother or from its wet nurse. It must, however, be emphasized that individualization is more important than cast iron rules.

If the infant is sick, and it is suffering with inanition, then it may be necessary to feed it every two hours, even though it is six or eight months old, in order that we may get the child into its proper stage of development. Healthy children must be fed with the application of common sense. One child will have a large appetite and demand two full breasts of milk, while another child of the same age and apparently the same amount of development will be satisfied with but one breast of milk. This shows that you must try to seek out the large appetites and the small appetites, just as we know that one adult consumes a large quantity of food, while another adult equally healthy consumes a much smaller quantity of food. Then, the quantity of milk secreted must always be considered; some women have as much in one breast as others have in both breasts.

My first proposition, therefore, in the prevention of disease, especially of summer diseases of infancy, is to insist on a regular interval in nursing. The summer diseases, particularly enterocolitis and cholera-infantum, will appear just as readily in breast-fed children who are improperly managed, as in bottle-fed children.

The nipples of the breast of a nursing woman require care, and should be washed immediately before and after nursing with a weak boracic acid solution (1 per cent) to insure asepsis. This will also wipe away milk which might otherwise ferment, and, besides, irritate and excoriate the nipples. In addition to the diseases affecting the nipple, we always find that those mothers who do not bestow care and attention to the details affecting their nipples invariably cause the mouth of the infant to become infected. The commoner diseases of the mouth more frequently met with in the hot season, such as stomatitis, or soor, or aphthæ, originate chiefly in micro-organisms harboring there from the nipples of the mother, or in germs in the mouth of the infant, caused by a failure to properly cleanse the same.

In addition to the diseases above mentioned, some of the most fatal diseases can develop as a result of improper breast feeding and it was to point out this fact most vividly that in my book,* I illustrate cases occurring in my private practice of rickets and athrepsia infantum, "marasmus," which occurred only in breast-fed children.

Now, if we will be reminded that such diseases can and do occur in breast-fed children, we certainly must consider how much more harm such diseases can cause in bottle-fed children, who are deprived of the luxury of breast milk.

Let us now consider bottle-fed children.

The summer diseases of infancy require considerable thought. If cow's milk is used, then it is wise to study the immediate surroundings of the cow, the stable, the milker's hands, and learn just how old this milk is, before it is brought to the home for the baby. If the sanitary surroundings of the stable can be improved, then such things stand to reason. Nowhere is cleanliness as important and as vital as it is in summer, when infants are dependent on cow's milk for their only source of nourishment. The slightest contamination with stable manure or germs may cause harm. To obviate this, chemists and physicians have, from time to time, sought to render germs innocuous by subjecting the milk to either a process of sterilization or pasteurization, or to some method in which heat is applied to the milk.

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*Louis Fischer, "Infant Feeding in Health and Disease," Pages 294 to 319.

When we study the result of any one of these processes, we find that so many vital changes take place that a new liquid is really produced by this agency of heat. What was formerly a simple solution, holding some vital principles, called albuminoids, is rendered absolutely inert by heat, and therefore it is, that the most prominent pediatrists do not advise the use of sterilized milk for a long time. What method then is the safest?

First: Milk, when drawn from a cow, must be drawn in very clean vessels from clean breasts and by clean hands. The principles of asepsis must be applied to everything coming into contact with this milking process. When the milk is drawn, especially in summer, it should be rapidly cooled and kept at a temperature of from 40 to 45 degrees F. until it is time for modifying the same for feeding our infant. Such milk should be diluted according to age, with a cereal, my choice being barley water, oatmeal water, arrow-root water or rice water. By rapidly cooling the milk, we prevent the formation and development of micro-organisms.

The danger in feeding milk which has not been immediately cooled and which is sometimes twenty-four and forty-eight hours old, consists in the contamination by micro-organisms or by the toxins generated in the milk by the same micro-organisms. When the toxins are formed in the milk, sterilization does not destroy the same, and such milk is an absolute poison. This has been so frequently demonstrated that attention is simply directed to the statements by Vaughn concerning the same. The prevention of the toxin generation in the milk is of prime importance. In experimentation on the lower animals with the toxin generated from the milk, diarrhea and death resulted.

It is quite possible, therefore, that the diarrhea caused by contaminated milk containing these toxins can be prevented by properly inspecting the means of supply of the milk. If the disease is established, nothing can be as important as the attention to the diet, and changing the food.

Having considered the means of prevention of "the summer diseases of infancy," which are closely allied and due to almost the same causes, let us consider the means at hand when the disease is established.

No matter whether the infant is breast-fed or bottle-fed, milk must be stopped—at least twenty-four to forty-eight hours.

A thorough cleansing of the gastro-intestinal canal from the mouth to the anus must be insisted upon. Thus one prefers mist. rhei et soda, while another advises castor oil, and others use calomel.

One of the best medications is:

(1) A teaspoonful or two teaspoonfuls of castor oil, followed in two or three hours by:

℞ Magnes. sulphat.,
Syr. rhei arom.,
Aqua foeniculi.
M. D. S.

Teaspoonful every three hours until yellow stools are produced.

Large quantities of water should be given to quench thrist and also to add to the volume of liquid in the circulation—owing to the devitalization caused by liquid stools.

Salt Water Enema. To cleanse the colon, an ordinary rectal soft rubber tube (number 6-10) is anointed with glycerin or vaselin and gently pressed into the rectum; the rectum is then thoroughly flushed with lukewarm (80 to 100) decinormal salt water solution.

Several quarts should be used. The tube should be gradually pushed through the rectum into the colon. In this manner a double benefit is obtained, namely:

First: Flushing and thorough cleansing of the parts.

Secondly: The absorption of salt water is accomplished.

Hypodermoclysis.—This is a simple method of introducing by hypodermic means ordinary sterile salt water solution. This can be carried out in every household where a fountain syringe exists. It is only necessary to adjust a long, sharp pointed hypodermic needle (anti-toxin needle) to the rubber tubing connected with the syringe. Nothing is so stimulating to an enfeebled heart, nothing will stimulate the circulation of the blood quicker than this method of salt water infusion. Hypodermic injections of camphorated oil 10-15 minims per dose, repeated every two or three hours, if necessary, should not be forgotten.

65 E. 90th Street, New York City.

—Int. Med. Mag.

# *Home Treatment of Phthisis.

BY GUY HINSDALE, M. D., PHILADELPHIA.

In treating a serious disease like tuberculosis the best environment is needed to insure success. The term "home treatment of phthisis" has different values. The homes of the poor and the homes of the rich, city homes, rural, rustic and frontier homes may all be classified as homes no matter how they differ in environment. I shall, however, take it for granted that we refer to ourselves or persons similarly situated. If you or I had phthisis what would we do? Would we remain in our own homes as they exist to-day? I think not. As a matter of fact if a member of the medical profession acquires phthisis he leaves Philadelphia, or New York, or Boston, and if he meets with the success he looks for we find him practicing medicine in Denver, Colorado Springs, Pasadena, Los Angeles or some other place where cures occur more frequently than on the Atlantic seaboard. I need not give names, every place I mention is identified in our minds with some friend whom, perhaps, we may rarely see but whose good work is every now and then brought to our attention. Ask them if they think they would have recovered, if they had remained in their former homes and I don't believe there is one who would say yes.

But circumstances alter cases and if home treatment, which I understand to be Philadelphia treatment or New York treatment or Boston treament is adopted, we know it is a makeshift, adopted from necessity and I expect very rarely from choice. Cases no doubt recover among us; lives are also no doubt very much prolonged by treatment and therefore the principles that have been laid down for treatment must be applied daily in our practice, whether private or public. The contrast between the conditions existing in the homes of the poor and even of those in moderate circumstances and the conditions found in a well managed hospital are very great and correspond quite favorably with the ad-

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*Read before the Philadelphia County Medical Society, February, 1901.

vantage gained when you remove a patient with means to some of our well-known sanitariums or health resorts.

People who leave their homes for hospitals, sanitariums and even open resorts will do a great deal more for themselves under new circumstances than they would have done at home. They will rise at six o'clock in the morning to drink mineral waters at a spring a half a mile away; they will join an early procession walking barefoot on the dewey grass; or they will readily conform to a regime adapted to the needs of a tuberculous invalid that they would soon tire of at home. The force of example helps to keep them in line with the rules best adapted for them. But left by themselves, in their homes, the patient who has some prospect of being cured, will often neglect himself and the physician will often lose sight of him for long periods when the cough or other symptoms are not urgent but when medical oversight is needed in just the same degree.

Unquestionably the prime requisite for treatment cannot be had in city homes. We do not realize how impure city air is until we go into the forest or to the seashore. It is like trying to treat diphtheria without antitoxin, or malaria without quinine as to try to treat pulmonary tuberculosis in the absence of pure air. There is no such thing as pure air in our homes, no matter how well constructed, if we make moutain air and sea air the standard. There is too much dust, smoke, carbonic acid gas and other products of exhalation, not to speak of pathogenic organisms.

Another objection to our city homes is the fact that under ordinary conditions during the colder season we are subjected to great transitions regarding relative humidity of the air. We leave a home heated by a furnace and the air of which, in ordinary living rooms, has a relative humidity 25, 30, or 35 per cent. We pass out into an atmosphere of 60, 70, or 80 per cent relative humidity, and so we go in and out and adapt ourselves as best we can to these conditions. Under the open air method of treatment the tuberculous patient has few, if any, of these transitions; he takes the humidity as he finds it out of doors night and day for the most part. If he happens to be in Colorado or New Mexico he has dry air all the time. Here he is inclined to make his "home" out of doors, and when he accomplishes that I will thoroughly endorse the "home treatment of phthisis." I take it for granted that the place where a person has contracted phthisis is not a good place for him to remain for treatment. Of course if he is too poor or too advanced in his disease we have no alternative. But it has been observed "that most consumptives live or die according to their strength of character in adjusting their life wisely to their disease, and for this reason many cannot be trusted to live again among the environments in which their disease was acquired

—Penn. Med. Journal.

COLD WATER IN THERAPEUTICS. Dr. Alfred Gordon, of Philadelphia, in a communication to the Philadelphia Medical Journal says: "A recent meeting of the Philadelphia County Medical Society was particularly interesting, owing to the very important paper of Dr. Simon Baruch, who gave us a very able and scientific presentation of the value of water in therapeutics.

"Your correspondent takes the opportunity thus presented to say a few words in favor of a treatment which in the hands of many authorities and his own, gave the most unexpected and brilliant results.

"Nervous diseases among all derive the most benefit from water treatment. While at Salpetriere the writer could observe that a great number of patients with various forms of spinal diseases were driven daily or walked to the building assigned especially for hydrotherapeutic purposes. He could see a number of tabetic patients suffering from intense pains greatly benefited by water. He could see a number of patients sent from the remotest places of the country suffering from various forms of nervous disorders, in which a prolonged medicinal treatment was of no avail, greatly benefited by a daily cold douche. Particular notice was taken by the writer of cases of cerebro-spinal syphilis or syphilis of the cord, in which the cold douche was the most efficacious treatment. As to functional disorders of the nervous system, the number of cases is legion. There is not a single patient with neurasthenia, hysteria or epilepsy, who does not get his daily douche. Experiments were made and the douches were withdrawn for a few days and patients kept exclusively on medical treatment; immediately the symptoms of the diseases returned.

"Last year the writer had under his care a boy affected with petit mal. In addition to the general hygienic and medical treatment he advised cold spongings twice a day. The number of attacks diminished and gradually disappeared. The cold water was obnoxious to the little patient and it was difficult to prolong it. The parents suppressed it entirely, but continued the drug treatment. The attacks returned in spite of increased doses of bromides. The cold water was readministered and the epileptic attacks disappeared. The same experience the writer had in cases of migraine, hysteria and chorea. At the Jefferson College Hospital he has under his care a case of syphilis of the cord. The patient affirms that he cannot do without the cold applications suggested to him; the rigidity and numbness of the legs, of which he complains, become aggravated whenever he omits the water treatment for a few days. As to the use of cold douches in other diseases, we have seen in the services of Dr. Lancereaux, in Paris, a very great number of cases of cirrhosis of the liver, due to alcoholic intoxication, of diabetes (fat and thin types), gastro-enteritis, enteritis. Particularly we were impressed with the good results in the first stage of alcoholic cirrhosis of the liver, when there is only congestion of the organ and later hypertrophy. Also in cases of pulmonary tuberculosis developed in alcoholic individuals the general health began to improve, the cough diminished, insomnia and night sweats disappeared and weight increased. Pure alcoholism without complications M. Lancereaux treated exclusively with a cold douche of one minute duration over the spine twice a day. Cases of enteritis accompanied by diarrhea he treated with a daily cold douche. As to diabetes we could see marked decrease in the percentage of sugar under the influence of a cold douche.

"Dr. Simon Baruch made a very interesting assertion, that a few ounces of cold water act upon the mucous membrane of the stomach as a cold douche. I heard it often from the late Potain. I can corroborate it in the most emphatic way. I remember particularly a neurasthenic Italian, for whom I prescribed a form of "bitters" for anorexia. He could not buy the drug, I advised then to take one swallow of ice water before each meal; the patient's appetite returned as if by magic. I do not affirm that it will do so in every case, but it is nevertheless very illustrative, that cold water acts as an excitant upon the gastric secretions.

"From personal experience and that of others, the writer can make the following statement: Water, and particularly of low temperature, is one of the most powerful agents in therapeutics and it is regrettable that it is neglected by many physicians. The writer had the pleasure of listening to the favorable remarks on hydrotherapy of such authorities as Drs. Sinclair, S. Solis Cohen and Musser, and joins his voice to theirs in urging the Philadelphia County Medical Society to take some steps towards promoting the usefulness of hydrotherapeutic applications. The writer is a firm believer in applying natural resources in treatment of diseases."

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SUGAR AS A FOOD. One can, without much effort of memory, recall those days when physicians inveighed in grave terms against the use of sugar. Mothers were warned of the injury to the health of their offspring which would assuredly follow the consumption of sugar in any but the most sparing quantities.

Sugar was "heating"; it caused constipation, and required a large amount of gastric juice to digest it properly. Moreover, it affected injuriously the respiratory organs and favored the production of intestinal worms. Now, nous avons change tout cela, and more enlightened views prevail. In various countries physicians became convinced of the errors of their ways, one of the first converts to the belief that sugar is a healthful food being Michel Levy, the well-known French hygienist. Proudhon and Cruveilhier supported these views, the former of whom was the author of the aphorism that "sugar constitutes the poor man's pharmacy," his pocket alone suffering.

At the present time sugar from being almost universally condemned has been advanced to a pedestal in the dietary list, and bids fair—unless due discretion be used in its consumption—to lead its lovers into excess with its consequent evil effects.

However, the truth that sugar is a valuable food cannot be gainsaid, and when, as stated recently in an editorial in the Sun, it is learned that its consumption has doubled for the world in fifteen years, and that in Great Britain is three times as great per capita as it was forty years ago, a good idea will be had of the appreciation with which the saccharine matter is regarded by the present generation. The Sun in the same editorial also refers to an interesting article by Dr. H. Willoughby Gardner on the dietetic value of sugar, in which he points out that it is easily digested and absorbed into the system; it is readily stored up as glycogen, forming a reserve of force-producing material; it is in this form readily available when required; it becomes completely oxidized without any waste, and leaves no residue. Dr. Gardner, who is an enthusiast as regards the merits of sugar, attributes to the fact that the British people are the largest consumers of sugar in the world, the reason that they have so greatly increased in height, weight, and health in the past half-century.

The German army authorities in 1897 made some experiments with regard to the sustaining and invigorating properties of sugar, which proved conclusively that it is an adjunct to the soldier's diet of almost inestimable value. It was declared that a few lumps of sugar acted like a charm against fatigue as well as in quenching thirst. The British government followed the example set it by the Germans, and now provides its soldiers with 37 gm. of sugar daily. The result of the experiment has been most satisfactory in the South African campaign. Our army, too, in its revised ration scale, is allowed a generous amount of sweet food, but the time of trial has not yet been long enough to pass judgment as to its effects, although there is no reason to doubt that the American soldier will assimilate sugar with as much benefit to his health as have his European fellows.—Med. Record.

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CARBOLIC ACID IN THE DISINFECTION OF WOUNDS. Von Bruns, of Tuebingen, Germany. in an article translated for the Philadelphia Medical Journal of May 18, states that there is much to be desired in the treatment of infected wounds, notwithstanding the brilliant results already achieved. The danger of poisoning by irrigation with antiseptics resulted in their discredit. Their loss of efficiency when brought into contact with the albuminous secretions also is an element of weakness. In many instances antiseptics, on this account, are entirely desisted from, and only sterile salt solution is employed for irrigation and for moistening the dressing. The author thinks, however, that we should still cling to chemical disinfection, but should seek a procedure which is germicidal without being injurious. Although his results are not yet conclusive, he is inclined to think that in pure carbolic acid we have the ideal disinfectant, although the dilute solution as formerly used in Lister's antiseptic measures frequently caused intoxication, eczema, marasmus, and gangrene. The danger of this does not seem to be present when pure carbolic acid is used. There is but slight reaction and absolute painlessness after its employment. Phelps has recently obtained brilliant results, after opening tubercular abscesses and joints, with pure carbolic acid. The joint is opened, scraped, and resected and then filled with pure carbolic acid, which after one minute is washed out with absolute alcohol. The latter is considered to be an antidote against the corrosive action of the carbolic acid. Carbolic acid in concentrated solution is relatively less toxic than when diluted, and its bactericidal action surpasses that of sublimate in albuminous compounds. The author has employed it in eighty cases of infected wounds, phlegmons, suppuration of joints, etc. After incision and curetting or excision of the diseased tissues, the surrounding skin is wet with absolute alcohol. The wound is then thoroughly swabbed with a gauze sponge previously immersed in pure carbolic acid. The amount of the acid used depends upon the size of the wound. There is a surprisingly small amount of secretion after the first dressing, so that the latter may remain from two to four days. In not a single instance did toxic symptoms or carboluria result. Pure carbolic acid destroys with certainty the bacteria on the surface and also those in the most superficial layers of the wound. He believes that the drug is destined to be reinstated as a remedy that forms a valuable adjunct to our mechanical procedures in infected wounds.—Medical Review.

SCIENCE AND PLAGUES. A London dispatch giving some facts from the blue book on India just issued, states that the mortality from the bubonic plague in that country for the five years ending March, 1901, was nearly 600,000. This is not as heavy mortality as might be supposed, but the plague, during the last year, has somewhat abated its violence for lack of material to feed upon and because, in spite of the stupid opposition of the natives to sanitary measures, the British authorities have been more successful in effectuating sanitary regulations and using the lymph prophylactic, whose efficacy has been demonstrated.

The bubonic plague has been carried to many localities from India, and among these Cape Town has been a sufferer from the carelessness of her sanitary authorities in letting ships from India enter the port when infected. It has appeared in the Philippines, Hawaii, at points in Russia, Turkey and Japan, and, according to a recent bulletin of the United States marine hospital service, there were over thirty deaths from it last winter in San Francisco, the Chinese quarter being the promoter. The newspaper press of San Francisco did all it could to suppress the fact of the existence of the disease in the city and opposed the quarantining of the Chinese quarter. The federal government, aware of the peril of permitting the spread of the plague, sent a special commission to San Francisco to ascertain the facts. The bacteriologist of the local board of health admitted that there were well-developed cases of bubonic and investigation and experiments with germs from a dead Chinaman's glands showed the unmistakable presence of the specific bacillus, as classified in Bombay by culture. The San Francisco newspapers furiously assailed the local health board and the United States authorities, but the evidence of the peril to the public was too strong and the enemies of prevention had to succumb and the marine hospital service and the city authorities, after much attrition, co-operated in the work of cleansing the fourteen plague-haunted blocks of Chinatown. An officer of the marine hospital service observed as the work proceeded: "God has been very good to San Francisco. It is a wonder that more than one plague has not stalked out from Chinatown, not only to decimate this city, but to ravage the entire country. Warning after warning seems to have been unheeded by the people of San Francisco." The report shows a condition of foulness hardly conceivable.

As a matter of fact, had it not been for the interference of the federal sanitary authorities, there is no doubt that the bubonic plague would have traveled along the line of disease-breeding holes all over this country. It has been abundantly proven that it thrives, not only in Asia, but only needs such material to feed upon which it found in San Francisco to develop its fatal power anywhere outside the circumpolar regions. Resistance to sanitary measures, as in San Francisco, is more reprehensible than the resistance of the people of India to such measures, because, presumably the people of the former city are more intelligent on these subjects than are the East Indian natives. It never is any profit for a community to try to cover up facts about a plague. If they succeed to any extent, they suffer more in the end, for the plagues which trouble humanity always make themselves felt and known disastrously by and to those who attempt to keep a screen over them.—Minneapolis Journal.

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THE AFTER TRATMENT OF SUMMER DIARRHOEA. The combating of the acute symptoms of gastro-intestinal infection is clear enough. Greater difficulty is encountered in treating the after effects. The poisonous decomposition of the proteids leaves certain definite lesions, and these suffice to protract the convalescence. Perhaps there is more or less degeneration of the intestinal epithelium. In other cases ulcers of the ileum and colon are present. In still others a fatty or albuminous degeneration of the liver and spleen is present. Then again a true infection of the intestinal mucosa may occur, producing a disease not unlike typhoid fever in duration and febrile movement.

Whatever be the lesion the physician must maintain an attitude of expectancy. Drugs can have little effect on the growth of epithelial cells, or the replacement of necrotic tissue in the liver. The patient must be kept alive by a nutriment that is harmless and yet sustaining. Among these foods whey certainly holds first place. A mixture of barley gruel and whey should be tried. Malted milk is useful in certain cases, but it usually increases the diarrhoea. In the ulcerative colitis beef and mutton broth are excellent.

When there is a general inactivity of the digestive apparatus, nothing equals human milk in efficiency. A small quantity added to the rice or barley water acts marvelously.

But do not be in a hurry. As long as the infant is alive do not surrender. There is never a case so bad but that it may get well. Stimulants and nutriment in small quantities are the principal agents. Then wait. The lifeless digestive cells will suddenly show signs of rejuvenation. And when the infant commences to gain the battle is won.

Do not forget that after a violent acute infection the fruit juices have a powerful tonic effect. A little apple or peach juice can be safely given. When appetite and digestion are in abeyance, these juices frequently act better than drugs.

Then watch the sleep, check too frequent discharges, soothe the pain, subdue the fever by water, and you will usually win.—Medical Adviser.

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THE PHYSICIANS' STRIKE IN GERMAN CITIES. The physicians employed by certain medical bureaux in Leipsic and Munich are reported to have struck some weeks ago in a body. The cause of the strike was the paltry pay allowed by the associations, and failing to obtain better terms the physicians combined and formed an organization conducted upon similar principles to those of a trade union. That the medical men of Munich were fully justified in refusing to continue their work, the statement that the pay after an increase reached the generous amount of fifteen cents a case will afford sufficiently convincing evidence. It seems, however, that the Munich doctors were not dissatisfied with this rate of payment for ordinary cases, but contended that it was not a satisfactory remuneration for performing surgical operations, or for cases requiring long attendance as childbirth. The bureau held a contrary opinion, and in consequence the physicians declined one and all to work for it. In Leipsic the circumstances resembled those of Munich except that the bureau was willing to hear complaints from physicians in its employ, but refused to recognize the organization. The strike in Leipsic, therefore, was for the principle of unionism. It is declared that there have been faults upon both sides, and that the patients are not one whit better satisfied with the treatment accorded them by the physicians than are the physicians with the conduct of the bureau. But what can be expected from a professional man who is paid at less than the rate of a hod-carrier in this country?

The co-operative system is being pushed to absurd lengths on the European continent and even in Great Britain, and there have been ominous signs of late that the "thin end of the wedge" is being inserted in this direction in the United States. Physicians have a perfect right to combine to avoid being imposed upon, and those of the German cities who have thus asserted themselves will undoubtedly have the sympathy of the medical fraternity in America.—Medical Record.

A SNAKE STORY comes from Ubet, Montana, that makes interesting reading during the hot days of summer at least. It is related that Dr. G. K. Sterling, while on a trip over a mountain, in the dead of night, and surrounded by rattlesnakes, saved his life in an odd manner. He stupefied the reptiles with chloroform. When all were unconscious he made his escape. Dr. Sterling often is called at night to go into the big snow mountains mining camps. On such occasions he frequently uses a railroad velocipede on the little narrow guage road that runs to the mines. He was sent for a few nights ago and used his car for several miles, and then was obliged to strike off across country to reach his destination. Half way on his journey Dr. Sterling was startled by the sharp and unmistakable sound of a snake's rattle at his feet. Then he heard a chorus of rattles. Peering into the gloom the doctor beheld a sight that made his blood run cold. He found himself practically hemmed in by the snakes. For a moment the physician was almost paralyzed with fear. Then a bright thought struck him. Within his reach was a piece of bark about three feet long. Wrapping his handkerchief about one end of the bark he saturated the cloth with chloroform from his medicine case. Then, cautiously poking the bark at the heads of the snakes, one after another, again and again, occasionally renewing the saturation, he finally had the satisfaction of seeing the snakes begin slowly and drowsily to descend into the grass.

NEW METHOD OF EXAMINING SPUTUM. Lanuoise and Girard (Arch. gen. de Med.) recommended the following method of examining sputum suspected of containing tubercle bacilli. It is based on the property possessed by the alkaline hypochlorites of dissolving mucous matter without the aid of heat. The sputum is put into a conical vessel, and covered by about 10 times its volume of a 33 per cent solution of chlorinated soda, and the whole well stirred up. It is then set aside for 24 hours, being given an energetic agitation from time to time. The disengagement of chlorine commences at once, and in 20 minutes globules of mucous and of pus (should the latter be present) are dissolved, the liquid becoming more or less turbid from the matters held in suspension. At the end of the time named, however, the suspended matter will have settled in the conical point and the supernatant clear liquid may be drawn off with a pipette. If a centrifugal separator is at hand, the operator can, of course, save himself the delay by operating on a single tube several times, decanting each time. When the volume of the material has been reduced to 2 or 3 c.c. there is added 5 or 6 drops of normal solution of sodium or potassium hydrate (40 grams of NaOH or 56 grams of KOH to the liter of water). This transforms the residual chlorine into a chloride of sodium or potassium, as the case may be. The mixture is alowed to stand, and the supernatant decanted. This leaves the material in condition to be fixed and stained by the processes of Zeihl or Ehrlich.—Am. Mo. Microscopical Jour.

MINNESOTA STATE MEDICAL SOCIETY. Dr. J. W. Andrews presented the following resolutions at the last annual meeting of the Minnesota State Medical Society, June 3rd, 1901.

Whereas, It is the part of wisdom that the Minnesota State Medical Society carefully discriminate as to the qualifications, moral and professional standing of all seeking admission into said society,

1st. Because this is essential to the healthful growth of the Minnesota State Medical Society,

2nd. Because county and other auxiliary societies look to the State Society to set an example in fostering and protecting the present high standard of the medical profession in this state, therefore

Resolved, That any person desirous of becoming a member of the Minnesota State Medical Society shall send his or her name to said society in writing by petition, signed by two members of the State Medical Society, who shall personally know the applicant.

Said petition shall then be referred to the committee on new members, but it shall not refer the same back to the society with its recommendation until the next succeeding annual convention of the Minnesota State Medical Society.

This resolution further provides that the names of all persons, who shall petition this society for membership, together with the names of those who sign the petition, shall be printed in the transactions of the Minnesota State Medical Society of that meeting of the society at which the petitions were presented; that mention shall be made in the transactions of the fact; that these applicants will be voted upon at the next annual meeting of the Minnesota State Medical Society.

The above resolutions were ordered filed with the secretary with the notice that they would be called up for action at the next annual meeting in Minneapolis, the third Wednesday in June, 1902.

On motion of Dr. Burnside Foster it was ordered that the above resolutions be printed in the Medical Journals of the state and that a copy of the resolutions be mailed to each member of the society within sixty days of the adjournment of the annual session of 1901.

Thos. McDavitt, M. D.,
Secretary.

AMERICAN ASSOCIATION OF ORIFICIAL SURGEONS. The American Association of Orificial Surgeons will hold its next annual meeting in Chicago, September 18th and 19th, 1901. Although quite separate, Prof. Pratt's "Clinic" will be held the same week, beginning September 16th. To those familiar with orificial methods and their practical application to the cure of chronic diseases, no special appeal need be made, other than to urge their presence or attendance at this meeting, as it promises to be one of the best held since the organization of the association. Lectures and papers have been promised by some of the most prominent medical men of the country. The discussions will be lively and interesting and one's knowledge of the work will be brightened and widened. To those who are not familiar with orificial ideas, theories and practices, we can say that there can be no more auspicious time to gain a practical knowledge of orificial surgery than at this meeting of the association. The whole field will be brought within reach.

Due attention will be given to preparatory work, and fundamental principles thoroughly expounded and illustrated by some of the brightest surgeons of this country. Due attention will be given to after-treatment, therapeutical and otherwise. Papers and discussions will embrace the whole idea and give the sum and substance of more than fifteen years' work along lines that have yielded prodigious success to the surgeon and general practitioner. No live man can now afford to ignore orificial surgery or be absent from this meeting.

W. E. Bloyer, M. D., Pres.,
Cincinnati, Ohio.
Henry C. Aldrich, M. D., Sec'y,
Minneapolis, Minnesota.

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ANOTHER ELECTRIC FAD has struck Paris. It is claimed that a French doctor has evolved a scheme to lengthen the joints to increase the stature of such persons as are anxious to be taller than nature intended them to be. He has elaborated an ingenious process by which the joints of the ankles and knees are to be daily operated on with an electric bulb. He claims that the osseous matter at the sections of the joints will thereby be expanded and the growth of the bones stimulated. The bulb is also to be applied to the spine. The doctor claims to prove by successes obtained on patients who have already been lengthened that he can add two-fifths of an inch per month during six months' operation. After six months the continual treatment is stopped temporarily, and is resumed later if necessary. The patients should be young and supple, otherwise the effects of stretching their joints might be grave. Whatever truth there is in the doctor's claims, it is certain that he will be besieged.

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AS the result of an extraordinary operation, Benjamin Coneau, of Astoria, whose back was broken on June 5 in Ward's shipyards, is not only still alive in St. John's hospital, Long Island city, but is recovering the use of his legs, which were paralyzed by the injury. July 3 Coneau was placed on the operating table, which had been specially prepared. An incision four inches long was made in the median line of the back. It was found that the lamina of the fifth dorsal vertebra was fractured close to the spinous process, which was pressing on the spinal cord. A portion of the bone was removed and more of the displaced bone drawn together to knit. He was then removed to a water bed and rested easily and comfortably. By the afternoon sensation had returned to his legs and he was able to move his toes and the muscles of his legs. The control and sensation were in a weak form. Coneau is of a cheerful disposition and joked over his condition.

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COLLEGE OF MEDICINE AND SURGERY, University of Minnesota. This well known and progressive school will receive students for registration and seats on the 17th of September. The entrance examinations will commence on the same day at 9 o'clock a. m. and 2 p. m., and the following day at 9 o'clock a. m. Examinations for conditions and advanced standing will also be held on the 18th commencing at 9 and 2 o'clock; also on the following day at the same hours. Entrance examinations will be continued on the 19th. The opening lecture occurs on the 23rd of the month, and the regular lectures and laboratory courses begin on the 24th.

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DR. C. J. KOENIG, formerly of San Francisco, but now of Paris, is reported to have discovered a new bacillus, which he has named the "Bacillus Polymorphus," occurring in what is claimed to be a new disease of the throat, which has been given the name

"Eroso Membraneus angina." On request of the Academie de Medicine, Dr. Koenig furnished the following particulars of the discovery:

"The patient who was the direct cause of my discovery was a man 35 years of age and in perfect health, with the exception of being subject to chronic rheumatism. The trouble began two months ago with a form of superficial ulceration, covered with a grayish false membrane in the upper part of the right tonsil. The only symptom was a slight pain in swallowing. There was no fever, no headache and no gastrointestinal ailment. In spite of all treatment the affection spread to the mouth in the form of superficial erosion, covered again with false membrane, which invaded the palate, the cheeks and even the tongue.

"After many weeks of close study and investigation, I discovered a bacillus to which I have given the name "Bacillus Polymorphus," on account of the remarkable variations in its size and shape. It is immobile, differing from all other bacilli in cultural properties and susceptibility to coloration by aniline dye. It is non-pathogenis, since guinea pigs don't die when hypodermically injected with the culture."

NEW TREATMENT FOR SMALL POX. In the Progres Medical, Paris, May 11, 1901, Dr. Nokowski reports a number of cases of small pox treated by rectal injection of hydrosulphuric acid in dosage of 10 mg. to 10cg., according to the age of the patient. In about fifty cases there was complete development of the pustules on the third or fourth day, and by the eighth or tenth day the crusts and scabs had dropped off. With large doses a number of patients were cured in five days. The worst case in the lot had four injections a day for five days and was well in eight days from beginning of treatment. The acid is said to render the micro-organisms innocuous by altering them from aerobic to anerobic bodies. He states that the eruption spares the abdomen after injections are made, seeming to indicate that a zone of protection had been thrown around this area.—Med. World.

DR. RONALD McKAIG, of Glasgow, Scotland, the late Queen Victoria's physician, while she was at Balmoral, is now on a vacation and spending his time at Banff, in the Rocky Mountains of British Columbia. In an interview with a reporter Dr. McKaig said that he is convinced that more people suffer from the effects of "high living" in this country than in the British Isles. Not that the people of Britain who can afford it are more temperate, but that the middle and lower classes of this country are financially better able to indulge in luxuries than the wage earning class in Britain. Americans generally are large consumers of meat, tobacco and liquors. The wage earning classes in Great Britain are forced to limit themselves in the consumption of these things. The advent of the hay fever season was noted. The doctor made the remark that hay fever was a result of habit and must be cured by correction in habits. That if a man afflicted with hay fever would on the 1st of next January "swear off" on the use of meat, liquor and tobacco, his next attack of hay fever would be less severe. Persistence in this denial would eradicate it entirely.

SAW PALMETTO AS A RECONSTRUCTIVE. To doctors who are subject to frequent attacks of catarrh and bronchitis, I would recommend fluid ext. of saw palmetto. Commence September 1, and take from one to two pints. Take from two teaspoonfuls to one tablespoonful in one-third tumbler of water before meals. Before you get through taking it, you will find yourself getting sleek and plump, and with an enormous appetite, with good digestion. You will gain from 5 to 15 pounds in weight and be free of colds for one winter. I have tried it, and know what I am talking about. It is far superior to cod liver oil as a nutritive and tonic, and is worth its weight in gold. Here is a chance for poor, scrawney, raw-boned women, and worn-out doctors.—Dr. Dum, in Medical World.

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THE WOMAN'S HOSPITAL, of Duluth, is closed. The work has outgrown its quarters, and, as no suitable building is available to rent, it was deemed unwise to solicit funds to build. This institution was opened in December, 1893, and was incorporated in November, 1898. From December, 1893, to April, 1901, 816 women and children were admitted. Every denomination and nationality was admitted without question. The income from the patients and a small donation by the city was supplemented by the small additional sum of $500 annually. The officers are: Mrs. W. C. Agnew, president; Mrs. T. W. Hoopes, vice president; Mrs. J. T. Hale, secretary and treasurer; Mrs. C. F. Leland, Mrs. S. H. Rothermel and Mrs. H. C. Crawford.

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THE BASTINADO AS A RESUSCITATOR OF THE SUPPOSED DEAD. In the January, 1900, number of the Homeopathic Journal of Obstetrics, Gynecology and Pedology there is a short paper by Dr. Chas. B. Gilbert, in which he tells how he resuscitated a newborn child that would not breathe under the usual incentives, by vigorously slapping the soles of its feet with the handle of a hair brush. He credits Dr. Carleton, of New York, with originating this mode of treatment, and prints a letter from him. In this he relates how a patient stopped breathing under ether anesthesia, and did not revive, even after the faithful use of artificial respiration, electricity, and other means of restoration, and was finally given up as dead as he entered the room. Bethinking himself of the policeman's effective mode of arousing drunks, he seized a slipper that lay handy, had the patient's stockings quickly stripped off, and flayed the soles of both feet as hard and as quickly as he could. Respiration was resumed within less than one minute. This is a simple and effective method, though hardly homeopathic.—The Medical Council.

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EXTRAORDINARY FECUNDITY. One of the Italian journals has recently recorded an extraordinary case of fecundity of which it guarantees the authenticity. Flavia Granata, who it appears is well known at Rome, has recently given birth to her sixty-second child. This woman is now fifty-nine years old. She was married at twenty-eight years of age, and has successfully given birth to a daughter, then six sons, then five sons, then four daughters, and then a long series of twins annually, and ended recently by having four sons. It is much to be regretted that this interesting woman did not marry earlier, as she thus lost ten precious years of her life, and so missed the distinction she might have enjoyed of being the mother of a hundred children.—Medical Age.

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ANOTHER CHNIESE LEPER has been sent to Darcy Island, near Vancouver, B. C., to join the three surviving sufferers of seven who have been secluded there. The others are very weak and feeble and probably will not live long on the islet of the Gulf of Georgia, to which they are confined by the provincial government, and on which they are occasionally visited and furnished with clothes and provisions. The last visitor, a young man named Jung Hoy, had for some time been kept out of sight by his friends in Chinatown, Victoria.

THE WOMEN OF NORWAY are carrying on a relentless war against consumption. A campaign of education will be carried into every household in the country and has been inaugurated by the Sanitary League of Norwegian women. The work will be done largely among the women, who will be taught what a mother and housewife can do to prevent the disease from entering their homes. Popular lectures will be given, leaflets and pamphlets circulated and the press will be used to carry information and advice. Consumption is less prevalent in Norway than in other countries, but it has shown an alarming tendency to increase. The physicians attribute this increase to the changes which have taken place in the life of the people. The peasants have changed their old ways and acquired some "civilization," but at the expense of general health and strength. The modern dwellings may be more cozy and comfortable and the modern food may be more palatable, but the health of the people has not gained by the change.

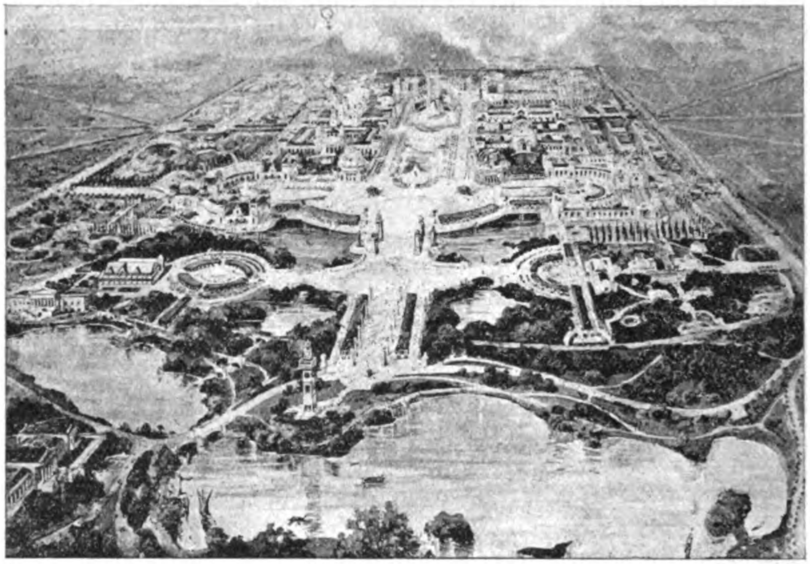
DR. REYNOLDS, a specialist on tuberculosis, of 25 West Twenty-third street, New York city, has recently performed an interesting experiment relative to the propagation of consumption. He injected some of the sputum of a consumptive into a rabbit. He caused a number of flies to be placed in a wire trap where there was some of the sputum. Later he shaved off the fur of another rabbit and put the rabbit and the flies in a trap together. At the end of 10 days the rabbits were dead. Dr. Reynolds said that this would seem to indicate that flies carry tuberculosis. He, however, is not certain that they do. He will conduct another experiment.

THERE will be no official yielding to the protests made against the location of the new contagious disease ward on the Minneapolis city hospital grounds. The board of corrections and charities decided that there should be no change in the program, and last month, at a special meeting of the board of health, it was voted to recommend to the city council to allow the construction of the building to proceed. The board declared that there could be no possible danger to surrounding community in the location of the building at that point.

THE DATE of meeting of the Mississippi Valley Medical Association has been changed from September 10, 11, and 12, to September 12, 13 and 14, owing to conflict with the time of meeting of another large society at the same place. The meeting will be held at the Hotel Victory, Put-in-Bay Island, Lake Erie, O. Any other information regarding the meeting may be obtained from the secretary, Dr. Henry E. Tuley, No. 111 West Kentucky Street, Louisville, Ky.

IT IS POINTED OUT by government reports that chocolate, which is coming more and more into favor as an American drink, grows cheaper in price the farther distant the market is from the place of production. In South America, the home of this article, the price for the better grade is about a dollar a pound, while in the United States and Europe it is on an average only half that amount. The ordinary chocolate of trade here brings from 30 to 40 cents per pound. Adulteration is the cause of an otherwise mysterious state of affairs, a cheaper article than the cocoa bean constituting the large proportion of 90 per cent of the chocolate of commerce.

DENVER is to have a new hospital, to be devoted to women and children exclusively, and under control of women physicians of that city. The Hospital for Women and Children has just been incorporated . There is to be aboard of fifteen directors, at least twelve of whom shall be women.



BIRDSEYE VIEW, PAN-AMERICAN EXPOSITION.

IN Keene, N. H., scarlet fever has been epidemic. The Cheshire National Bank of that place is having all the money sterilized in order to prevent the spread of the disease.

THE RAILWAY SURGEON, Chicago, has been transformed into a much larger and better appearing publication, and is now issued monthly, instead of semi-monthly. This journal is the official organ of the International Association of Railway Surgeons.

THE supreme Court of Indiana has decided that a physician is not necessarily compelled to accept and answer calls, even though he has formerly been the family physician in the family.

DR. FRANCIS CROSSON, of Albuquerque, N. M., has removed to Santa Fe, N.M. Dr. Crosson is well known to many physicians of the Northwest.

Dr. H. M. Bracken, secretary of the state board of health, is endeavoring to bring state and local health authorities into a closer co-operation. With this in view, he has suggested a conference or informal convention of health officers and boards of health, to be held this fall in the twin cities. It will probably be convened during state fair week.

Dr. Bracken believes that such a meeting could be made of much practical value, so much so as to lead eventually to a state organization. Massachusetts, Pennsylvania, Ohio, and several other states have state associations of health officers, and their work is of considerable service. It affords an exchange of ideas, and brings about a closer co-operation, which is essential in preventing the spread of infectious diseases.

A bill passed last winter creating county boards of health was a step in this direction. These county boards are intended to look after quarantine and other public health measures in newly settled localities. These boards, however, will serve as a connecting link between local boards and the state board, and Dr. Bracken hopes to see them in many counties. They would be especially valuable in supplementing the state board's quarantine work. Local authorities are apt to be lax through friendship, and the state board cannot keep informed on conditions in every locality. A county board would not operate under either disadvantage.

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THE ALBRIGHT ART GALLERY
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Art Gallery, Pan-American Exposition.

M. Dagin, a French entomologist, recommends a bug diet. The reports do not say that he draws the line on potato bugs and bed bugs.

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Dr. E. Frank Reamer, formerly of Eveleth, was married to Miss Josie Berg, recently.

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# BOOK NOTICES.

PHYSICAL DIAGNOSIS IN OBSTETRICS. A Guide in Antepartum, Partum, and Postpartum Examinations for the Use of Physicians and Undergraduates. By Edward A. Ayres, M. D., Professor of Obstetrics in the New York Policlinic; Attending Physician to the Mothers' and Babies' Hospital. With illustrations. New York City: E. B. Treat & Co., 241-243 West Twenty-third street. Price $2.

The above work has already been published in serial form in OBSTETRICS, but in order to eliminate the errors that inevitably will creep into a hurried monthly publication is was thought best to publish the matter in convenient book form. The art of correct diagnosis is, of course, of exceptional importance in obstetrical practice, to prevent many abnormalities that will arise in labor if mistakes are made, and faultless technique in difficult cases is all-important. There is no branch of the practice of medicine that has made more advancement during the past half century than obstetrics, and the author has incorporated a complete description of the very best methods employed both in his own extensive practice and by other eminent specialists, so that the book as a whole may be considered a complete authority in all things pertaining to the subject. The "Obstetrical History Chart" is given in the most complete form we have ever seen. A "Pelvimetry Scale and Table" gives the average pelvic and fetal head diameters on a convertible metric and English scale. There is also a table of average dimensions of the external pelvis, including weights and heights, taken from 3,000 confinement records, of the Mothers' and Babies' Hospital. The illustrations are superb.

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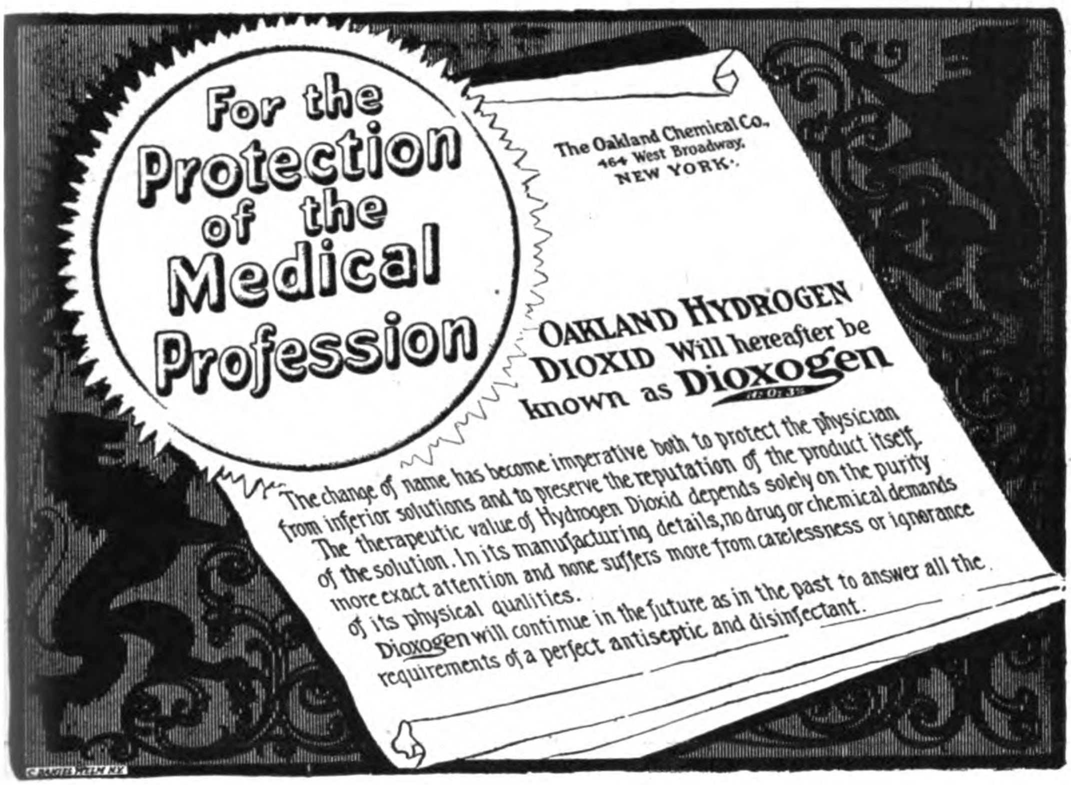
THE BOUDOIR COMPANION—a Twentieth Century Book for Mothers and nurses. By Flora L. S. Aldrich, M. D., member Minnesota Medical Society, American Medical Association, etc. Published by the Author. A. D. 1901. Price, cloth, $1.00 and $1.50, according to binding. Sold through agents or direct from the author, Anoka, Minn.

This is a pretty little handbook for mothers, before, during and after parturition, in paragraph categorical form, with the questions omitted, and is not intended for physicians at all. The matter is made up of answers to questions that have been propounded by women to the author through a long experience as a practitioner. The book is up-to-date and in accord with modern medicine, and the instructions given will be found extremely useful to mothers and prospective mothers. Being simple in style, all technical or abstruse verbiage being carefully avoided, it may be understood by any intelligent woman.



For the Protection of the Medical Profession

The Oakland Chemical Co.,
464 West Broadway,
NEW YORK.

OAKLAND HYDROGEN DIOXID Will hereafter be known as **Dioxogen**

$H_2O_2$ 3%

The change of name has become imperative both to protect the physician from inferior solutions and to preserve the reputation of the product itself.

The therapeutic value of Hydrogen Dioxid depends solely on the purity of the solution. In its manufacturing details, no drug or chemical demands more exact attention and none suffers more from carelessness or ignorance of its physical qualities.

**Dioxogen** will continue in the future as in the past to answer all the requirements of a perfect antiseptic and disinfectant.

No Pain beyond this Gate
AK

PROTAN, a new intestinal astringent, introduced by H. K. Mulford Company. Protan is a definite chemical compound formed by the synthesis of tannic acid with nucleo-proteid, containing 50 per cent of tannic acid. It forms a light brown powder, is tasteless, odorless and entirely free from astringent action upon the mouth and stomach. It is insoluble in water, acid solutions or the gastric juice; does not coagulate albumen nor precipitate pepsin or peptones; is unaffected by the gastric juice, and passes through the stomach chemically unchanged; it is therefore entirely free from deleterious action upon the stomach and processes of digestion.

Protan first evolves its active astringent ingredient, tannic acid, when it reaches the small intestine and comes in contact with the alkaline pancreatic juice. Free tannic acid is but very slowly evolved from Protan as it passes downward through the intestines, so that its astringent action is manifested throughout the entire intestinal tract. This fact is verified by the appearance of minute quantities of both Protan and tannin in the feces.

Protan owes its influence to the presence of tannic acid so combined that this body reaches the intestines chemically unchanged. The astringent action of tannin, as all authorities agree, is due to the fact that it precipitates (coagulates) the albuminoid bodies of mucous membranes, which coagulation leads to an actual shrinkage of the structures, with constriction of the capillaries and diminution of secretion. When tannic acid is administered by the mouth, these changes take place in the stomach, so that not only is the gastric mucous membrane and the process of digestion seriously impaired, but the tannic acid is decomposed by the gastric juice into gallic and pyrogallic acids, which are non-astringent; hence, very little, if any, of the tannic acid reaches the intestines in a chemically unchanged (astringent) form. Protan, on the contrary, passes through the stomach in its original form and presents to the intestines a definite amount of tannic acid, chemically unchanged and actively astringent. The well-known properties of tannic acid towards albuminoid bodies are here manifested. The growth of bacteria is hindered, their toxins rendered inert, the intestinal mucous membrane is contracted, covered with a superficial coagulum, the capillaries constricted and the exudation of leucocytes prevented. Thus is explained the remarkable clinical value of Protan, in all catarrhal and ulcerative conditions of the intestines, associated with diarrhoea.

Indications.—Protan may be said to be the ideal astringent. It is, even in enormous doses, harmless and free from irritating properties. It is not astringent to the mouth or stomach, nor are the processes of digestion impaired in the slightest degree. These qualities are not possessed by any other known intestinal astringent.

Protan has the unique distinction that it is effective in all forms of diarrhoea, acute catarrhal diarrhoea, chronic enteritis, diarrhoea of phthisis, and in infantile diarrhoea. In the diarrhoea dependent upon the growth and multiplication of bacteria, Protan is especially valuable; it so changes the chemical nature of the albuminoid contents of the intestines that they no longer offer the food necessary for micro-organismal growth.

Protan exerts its astringent action upon the entire intestinal tract, from the duodenum to the lowermost portion of the large intestine.

In Acute Catarrhal Diarrhoea (cholera morbus) due to the ingestion of unsuitable food, the use of Protan is best preceded by castor oil, or other laxatives, in order to remove the offending materials from the intestines. Fifteen-grain doses of Protan, repeated every hour or two, speedily effects a complete cure.

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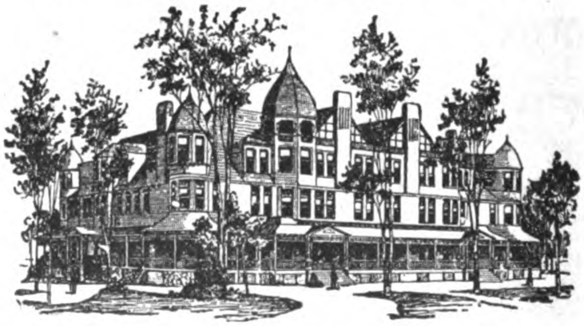

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Vol. III MINNEAPOLIS, MINN., SEPTEMBER, 1901 No. 9

PURE WATER. As the human body is composed of more than three-fourths water, it would seem reasonably prudent to secure for drinking purposes a supply free as possible from impurity, that the system might not be poisoned but rather invigorated by its use. It is not enough, therefore, that the supply for our city should be ample, but it is the duty of the authorities and the whole community to demand and see that it is suitable and safe for domestic purposes. No river water, flowing through inhabited and cultivated lands, into which drains from villages and manufacturing establishments empty their contents, is fit for the human stomach. This fact admitted, the river supply for Minneapolis must be condemned for domestic use, as it has been many times by those competent to judge. To render it comparatively safe it must be boiled, and hence a large class of individuals are compelled to buy their water from some source known to be free from contamination; but how few there are of these, as compared with the whole population, which must submit to the dangers now known to exist in the city supply.

What, then, is the remedy for the admitted menace to the health of the city from polluted water? Nature has been very kind to Minnesota in many ways, and in none more so than in the abundant supply of water by its many lakes scattered liberally all over the state. Some of these are large and deep, and situated at such an elevation as to furnish many of our cities with their supply by gravity. One such, Mille Lacs, seems especially adapted for the wants of Minneapolis, and Saint Paul as well, if the two cities could combine to secure the water for their needs. The lake has over 200 square miles of surface, elevated some 400 feet above the twin cities, and its purity is unquestioned. The quantity is sufficient for both cities for all future demands. With this supply introduced into the cities, no more typhoid fever germs would be distributed throughout the households as at present when the pumps are located (a part of them) just below the foul outpourings of the city sewers. There would be no shortage of water for mechanical power and fire protection, no stinting for lawn sprinkling, and no dry and idle fountains in our parks and on our beautiful boulevards. What could impress our visitors more favorably than to see pure water freely flowing from all parts of the city, and to know that it was safe to drink at any outlet.

With such a supply by gravity, there would be no more call for 200,000 dollar pumps with their constant deterioration and necessity for expensive repairs, no costly attendants and expensive fuel supplies; no more talk of a settling basin at a cost of $300,000 (a snare and a delusion, as many believe, at best). This saving alone would go far towards paying all the interest on the original outlay for the works, not to mention many valuable lives saved that now are sacrificed by the use of water dangerous to the public health by contamination.

There is said to be now a movement in progress to investigate the source of water supply from the above named lake, and let us encourage the effort by all our means and hope that success will crown the undertaking at an early day. Then Minneapolis may be known to the whole world as a city where the water supply is pure and safe for domestic use at all times.

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### PROF. KOCH AND TUBERCULOSIS.

Any word coming from Prof. Koch, of Berlin, Germany, concerning tuberculosis attracts immediate and universal attention. His long and brilliant researches of the disease have clothed his utterances with great authority; but since the failure of his tuberculin to met the exalted expectations of the profession as at first predicted, there has not been that unquestioned belief in his theories as at that time took the world by surprise, and caused such a throng of consumptives to rush for relief and cure at his hands, most of them to be disappointed in the result. His report at the late Congress of medical men in London that the tuberculosis of cattle and of men are not identical has not yet been received by the profession as true; while he may not have been able to produce in cattle tubercular disease from human bacilli, he has not demonstrated to the satisfaction of physicians that the disease cannot be communicated from animals to men. Whether his theory proves to be true or not, it will be unfortunate if his report causes any halt in the efforts to stamp out the disease both in cattle and the human family. We want no meat from the tubercular ox—no milk from the tuberculous cow—and may there be no relaxation of rigid inspection of what is offered for our use. Let the good work of eradication of this devastating disease go on with vigor, and rid the world, if possible, of this dire scourge to the human race.

The Professor still has faith in the tuberculin treatment for tuberculosis, as recommended in the following quotations:

"With regard to the therapeutic application of tuberculin, however, it is a fact of special importance that the production of strong reactions, such as were deemed necessary at first, is now generally abandoned. On the contrary, physicians endeavor to keep the reactions as slight as possible, and not to repeat an injection of tuberculin until the preceding reaction has completely passed off, and the temperature has been normal again for one or even several days. One can even, as Goetsch has shown, carry out the treatment without any reaction at all. It is also very expedient to repeat the treatment with tuberculin, with intervals of three or four months, till the capability of reaction is permanently extinct. Petruschky, who has given this method the name of 'stage treatment,' has effected by it cures whose permanence has stood the test of years of observation.

"The rules which experience has prescribed for the treatment with tuberculin may, therefore, be briefly summarized as follows:

"(1) Only patients who have no fever, and in whom the process has not advanced too far, are suited for the treatment. (2) One begins with a very small dose, and increases it so slowly that only very slight reactions, or even none, take place. (3) If reactions take place, tuberculin must not be injected again till the temperature has been normal for one or several days. (4) The treatment with tuberculin must be repeated until, after an interval of three or four months, the capability of reaction is permanently extinct,"

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A TIMELY WARNING. The records of the Minnneapolis Health Office show that diphtheria is not only prevalent in the city but increasing rapidly. In July 135 cases were reported, with eighteen deaths. For the first five days of August 26 cases were reported, of which number eight were fatal. The total number of deaths for last year was 113. This number has already been exceeded in the present year, with four and one half months yet to hear from.

This is a serious matter, and is well worth the attention of the health authorities, the school board, the physicians of the city, and the public in general.

This is no time for laxity in quarantine regulations. We are glad to learn that the health officers are applying methods in the isolation of diphtheria as rigid as those relating to small pox. The entire family in infected houses will henceforth be compelled to remain indoors, and the services of policemen will be enlisted to watch infected houses and enforce the rules. These are steps in the right direction, and should meet with general approval.

A suggestion of Dr. Bracken, the efficient secretary of the State Board of health, is deserving of careful attention. It is as follows:

"Before the opening of school, the school children in those districts in which diphtheria is prevailing, should have cultures taken from both nose and throat, and if the diphtheria bacillus is found present, such children should be excluded from school until a negative report be given by the proper authorities. These cultures may be taken by medical school inspectors and submitted to the city laboratory for examination.

"In districts where no diphtheria has been reported, it would not be necessary to examine the school children culturally before the opening of school, but cultures should be taken from all school children at an early date after the opening of school in order to exclude from school any who have present in the nose or throat the diphtheria bacillus.

"These precautions, with reasonable watchfulness on the part of parents for any suspicious sore throat among their children, and with the watchfulness of teachers for any suspicious cases of sore throat in their schools, would do much toward preventing the spread of diphtheria."

We would earnestly call upon the general practitioners of the city to aid in the good work of preventing this disease. No one individual in the community can do so much in this direction as the family physician. A little laxity or leniency on his part may do incalculable harm; promptness and a single eye to the public safety will limit the spread of the disease and save many lives.

PROF. ROBERT KOCH ON MALARIA. In the essay of Prof. Koch on Malaria, read at the British Tuberculosis Congress in London, July 23, 1901, he gives his extensive experience in the treatment of this disease, as found in the worst malarial districts in the Brioni Islands, New Guinea, and in remote places in Java. His method to remove the parasites found in the blood of patients, permanently, is by quinine; and for adults he gives 1 gram (20 grains) two days in succession, and repeats after an interval of nine days, or in obstinate cases, such as the quartan, he gives 1 gram three days running and repeats after an interval of several days. To children under six months one-tenth of a gram may be given, and those of five or six years of age one-half a gram will be well borne. This treatment must be continued for at least two months, and the patient kept under observation and his blood examined from time to time for a considerable period to be sure of a cure.

Prof. Koch says, by way of illustration of the success of his treatment, "When I arrived at Stephansort in New Guinea, there were no children there. they had all died of malaria. I took special pains to protect the children that were born during my stay there, and those that came to the place with their parents, against the pernicious influence of malaria. They were examined from time to time for malaria parasites, and treated with quinine if any were found. Under such treatment those children, whose number amounted at least to about a dozen, throve splendidly; not one of them died." And again, "In Batavia and other towns in Dutch India, which used to be notorious for their malarial death rate and were called 'the European's grave,' a considerable improvement has taken place since the gratuitous dispensary of quinine was introduced."

THE GREAT STRIKE. The great struggle now going on between the "Steel Trust" and the "Amalgamated Association of Iron and Steel Workers" is attracting wide notice, and the result will be watched and waited for with universal interest. The questions between them seem not of more wages, or of less number of hours for a day's work, but really whether the employers shall control their business, or have it controlled by the Association. In the lately published interview of Bishop Ireland, of St. Paul, Minn., without expressing any opinion as to the rights of either party in this controversy, he seems to have uttered the key note of what should be the motto of all Americans, viz.:—"We must have individual liberty in this country." That is liberty consistent with the rights of others, and not in a disturbing sense. That is what we are here for as a nation, and it is a position no other country has ever held on the earth.

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THERE ARE DRUGGISTS, AND THERE ARE PHARMACEUTISTS. There are pharmaceutists, and there are druggists also. Most of them are most excellent law-abading citizens; they wouldn't do a thing contrary to the laws of the land, they wouldn't even substitute, but there is a very small percentage who will commit the crime just named whenever an opportunity is afforded, if a fraction of a cent is to be made, or if it takes a little longer stretch of the arm to reach the bottle containing the particular compound indicated on the physician's prescription. If a doctor prescribes arsenic, manufactured by A, that will kill in the very latest conventional form, in accordance with the wishes of his patient or the latter's friends, the very small percentage of druggists indicated above will fill the order with this particular brand of arsenic, IF it costs less than some other, but if an arsenic, manufactured by B, comes from the wholsaler a fraction of a dollar on the package less than the variety indicated on the prescription, which may, in its effects take a shorter cut to heart failure on the part of the patient, thus exciting suspicion to such a degree that an inquest will be called for—a predicament that the physician will wish omitted—he will reach to the very top shelf, even if he has to utilize a step ladder, and will spoil a new cork screw to get at the fatal stuff.

Yes, the crime of substitution of drugs is a flagrant one, and when discovered should be reprimanded by the physician, but it is most often very difficult to find out, whether the patient improves or whether he does not, or whether he dies from the effects of the substituted drug. If the patient improves it is most often from the fact that he has reached an unlooked for turn in the disease where he would commence to mend whether he has medical treatment or is simply in the hands of his nurse—but such instances are rare.

The drug substituter should be tabooed by the medical profession.

DANGEROUS TEACHERS. In considering the qualifications of public school teachers and principals would it not be well for those in authority to have some regard for the lives and safety of the school children? It is currently reported that a prominent cause of the failure of medical inspection of the schools was the fact that some of the principals are believers in Christian Science and will not admit the presence of disease in the school room, even when diphtheria, measles or scarlet fever is manifestly present. Principals and teachers of this stamp are dangerous.

MANY SODA FOUNTAIN PARAPHERNALIA of our cities are abominable habitats of disease germs, so slovenly are they utilized by the often uncouth dispensers. Soda water has become such a national beverage that it would seem well nigh impossible to get along without its soothing effects and the palatable syrups which are nearly always served with it, but it is often the case that the imbiber of a luscious glass of soda, et cetera, takes in so many dangerous microbes with each contraction of the gullet that it would keep him counting all through the succeeding winter to enumerate them all.

The remedy is a proper cleanlines on the part of those who serve the fountain and handle the drinking glasses, spoons, etc. Every utensil used in common should be sterilized after being used, so that it will be absolutely clean for the next user.

# An Investigation of a Pathogenic Microbe

(*B. typhi murium—Danyz*)

# as Applied to the Destruction of Rats.

By M. J. Rosenau, M. D.

Passed Assistant Surgeon and Director of the Hygienic Laboratory, United States Marine Hospital Service.

The subject of the destruction of rats has assumed great importance within recent times on account of the spread of plague to the four quarters of the globe.

In the short time since 1894, when plague broke from its Eastern confines where it had slumbered so many years, a great mass of exact scientific knowledge has been gathered concerning the disease. The relation of the rat to the spread of the disease has especially engaged the attention of investigators. During the great outbreaks of plague in the middle ages the unusual mortality among the rats was noticed, and it was obvious then that these animals played some rôle in the spread of the disease. We now know definitely that the rat is susceptible to plague. This rodent sickens and dies of the disease in much the same manner as man. An epidemic may be foretold by a great increase of mortality in rats, for when this occurs it may be shown that the rats first contract the disease and afterwards transmit it to man.

The destruction of rats has, therefore, become of the first importance from the standpoint of the public health and the prevention of the spread of plague.

Plague has threatened our country from both its seacoasts, and it is probable that the only reason it has not spread in San Francisco is due to the fact that the disease has not been prevalent among the rats.

In the spring of 1900 J. Danyz described a new method for the destruction of rats by means of cultures of a certain bacillus.* This bacillus he obtained from a spontaneous epidemic among harvest mice and by means of rather complicated and artificial methods he managed to increase its virulence so that it became pathogenic for the several species of rats. The claim is made that the employment of the cultures of this bacillus, sold under the name of "Rat Virus," is efficient for the destruction of these rodents.

The following work was undertaken in order to test the validity of this claim.

## THE ORIGIN OF THE VIRUS.

In 1889 Loëffler discovered the bacillus typhi murium, which he isolated from a spontaneous epidemic among white mice, and which he applied with success to the destruction of harvest mice (m. arvicola). Other bacteriologists have observed similar epidemics and have isolated the microbes thereof, morphologically identical with the bacillus of Loeffler, but more or less virulent for the several genera and species of the little rodent.

For example: The B. typhi murium of Loeffler was only frankly pathogenic for mice (m. musculus) and for harvest mice (m. arvicola). A bacillus isolated by Laser was pathogenic for the m. agrarius, that isolated by Merechkowski for the spermophiles, and finally that isolated by Issatchenko for white rats.

Each of these various bacilli is of such variable virulence that it cannot be used practically for the destruction of all species of these rodents.

Danyz, therefore, conceived the notion that it would be of great interest, first to extend the field of action of one of these organisms by increasing its virulence so that it would attack other species of rodents and then, this virulence increased, to maintain it at its highest point. This is how he proceeded to solve the problem.

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*Annales de l'Institute Pasteur, April, 1901. A translation of the article by Danyz appeared in the Public Health Reports of May 25, 1900, vol. xv. no. 21.

He first isolated a bacillus from a spontaneous epidemic among harvest mice. This organism has a cocco-bacillus, presenting in general the characteristics of the colon bacillus, and resembling the bacillus of Loeffler—B. typhi murium. From the first this bacillus showed a slight pathogenicity for gray rats (m. decumanus). Out of 10 animals fed with a culture of this microbe 2 or 3 would die; several others would sicken and recover; others still appeared completely refractory. The fact that a certain number of the rats fed with these cultures always succumbed led to the hope that it would be possible to increase the virulence of this particular microbe by the generally accepted methods—that is to say, by a certain number of passages from rat to rat.

Danyz first tried to increase the virulence of the organism by this means, but he found that successive passages from rat to rat, whether by feeding or by subcutaneous injection, ended by enfeebling rather than increasing the virulence of the microbe. He found that it was rarely possible to go beyond 10 to 12 passages. Sometimes the series was stopped at the fifth passage, or even sooner, by the survival of all the animals undergoing the experiment. The result was exactly the same, if, instead of alternating each passage through the animal by a culture in bouillon or agar, the bodies of animals dead of a preceding passage were fed to others.

It was, therefore, plain that in the evolution of an epidemic caused by this microbe it was necessary to take account of the indisputable diminution of the virulence of the microbe, as well as the natural resistance of the survivors.

Finally, passages of cultures in collodion sacks, inclosed in the peritoneal cavities of rats, were tried, both in interrupted series and by alternating each sack culture with a culture in bouillon or on agar, but the end was invariably a notable diminution of virulence when administered by the digestive tract.

Danyz finally managed to increase the virulence of the organism, so that it was pathogenic for rats, by the following process:

### DANYZ'S METHOD FOR INCREASING THE VIRULENCE OF THE VIRUS.

A culture of the bacillus was selected that was fatal for mice in four to five days and grown in bouillon to accustom it to an anaërobic existence. This was accomplished by growing the culture in flasks as completely filled as possible. The flasks were placed in the incubator until the culture developed, and then kept at ordinary temperature until a deposit formed and the bouillon became perfectly clear. This may take four or five days, and its object is, as above stated, to accustom the microbe to an anaërobic existence.

From the flasks the culture was passed in a collodion sack, which is kept from twenty-four to thirty-six hours in the abdominal cavity or a rat and then planted anew in ordinary bouillon and thence again into flasks. The culture was transferred from these last flasks to agar, and it is these cultures on agar that Danyz gave to mice to eat, after having diluted them with water and soaked bread and grain in the dilution.

This series of operations was repeated several times, and at the fourth or fifth repitition a decided increase in virulence was noted. Mice, which died only at the end of four to seven days, now died in thirty-six to sixty hours after the ingestion.

After this decided increase in the virulence for mice was obtained, the mice were replaced by white rats, commencing with young rats a month or six weeks old, and, as the passages are continued, taking older rats. Proceding thus and making collodion sack cultures in the abdominal cavity of the species of the animal which it was desired to infect, the culture was specialized, so that it was rendered sufficiently virulent in ten passages. Operating in this manner, Danyz finally succeeded in rendering regularly virulent for gray rats m. recumanus), then for black rats (m. ratus), and finally for white rats, a culture which was originally but slightly virulent for the gray rat and entirely inocuous for the other two.

The bouillon used was made from horse meat with one per cent peptone, and to which was added a little carbonate of lime to neutralize the acids which are formed during culture and which rapidly diminish the virulence of the microbe.

After this long and painstaking procedure, Danyz obtained a very virulent culture that, contained in flasks and kept from the influence of light and air, preserved its virulence for several months. Planted on agar it preserved its virulence without appreciable diminution for two months. In bouillon, in flasks or tubes stoppered with cotton, it altered very rapidly.

One cannot read the foregoing account with out admiration for the patience and perseverance required to increase the virulence of an organism by so many passages through the peritoneal cavities of rats by means of the collodion sack method.

## DESCRIPTION OF THE ORGANISMS.

The cultures with which I did the following work were obtained from the Pasteur Institute.

The organism is a cocco-bacillus, showing distinct motility. Stains well by the ordinary stains and does not stain by Gram's method.

It grows well at ordinary room temperature; also in the incubator, and on all the ordinary media. In bouillon it produces a uniform cloudiness in twenty-four hours. A slight scum forms after several days' growth, which falls to the bottom when shaken. In Dunham's solution it grows well, but produces no indol in twenty-four hours' growth.

It turns blue litmus milk red, but does not cause coagulation.

It grows the whole length of the stab in gelatin, forming small whitish colonies in the deeper portions of the tube. It does not grow over the entire surface of the gelatin tubes. Does not liquify.

It grows under anaërobic conditions.

It ferments glucose bouillon, but not lactose bouillon.

In glucose bouillon it produces $1\text{-}CO_2$ $5\text{-}H$.

It also produces $H_2S$.

From a general biological standpoint it is plain that this bacillus belongs to the para colon group, and is very similar to the bacillus of rabbit septicæmia, hog cholera, and icteroïdes—as far as its morphological and cultural characteristics are concerned.

## VIRULENCE OF THE VIRUS FOR RATS.

One hundred and fifteen rats were fed with the cultures in various ways during the course of my experiments with the virus. Of these, 46 died—less than half.

Most of the rats used were the gray rat (m. decumanus) and the tame white rat. A few (8) of the wild brown, or Norway rat, were used.

The virus is in reality pathogenic for these three kinds of rats when ingested. No special difference was noted in its effects upon the various species.

As the work progressed it soon became evident to me that the result depended largely upon the amount of the culture ingested. By starving rats for a day or two and then giving them all they could be induced to eat and drink of the cultures, a very positive result was obtained. In one instance of 27 rats so fed, all died within a week. If the rats are given a small amount the effect is uncertain—only a few die. In one instance I fed 70 rats with 4 agar tubes, and only 7 died. Upon refeeding them with very large quantities, 9 more died. The survivors were then fed with all they could be induced to eat every day for a week, without effect.

It, therefore seems plain that a large primary dose proves fatal, and a small dose is not only uncertain, but produces an immunity. This is a very important factor, for it is likely that in the wild state rats would often partake of an amount too small to cause death. Such rats may then subsequently eat large amounts of the culture with impunity.

It would seem, then, that, after all, the virus is not so different from the laying out of a chemical poison, depending as it does for its effect upon the amount ingested. A chemical poison, however, does not possess the disadvantage of producing an immunity. Another disadvantage possessed by the virus is the rapid deterioration in virulence which occurs when it is exposed to the action of air and light, or when it becomes dry, as is very apt to happen when laid out for rats in the wild state.

Against this the virus has the very decided advantage over the usual chemical agents used to kill rats that in so far as known it is harmless for man and domestic animals.

### THE DISEASE PRODUCED BY THE VIRUS HAS FEEBLE POWERS FOR PROPAGATING ITSELF AMONG RATS.

Danyz has pointed out the fact that the epidemic produced by his virus in rats is self limiting. This is due to two causes:

1. The attenuation of the virus.
2. The resistance of the rats.

That the disease can be spread from rat to rat by eating each other cannot be doubted, but this method of the spread of the infection is very feeble. I fed rats upon the organs (spleen, liver, etc.) of other rats dead of the infection, without producing any effect. Rats will sometimes eat each other, but sometimes they refuse. I fed dead and sick rats to 10 healthy rats in a cage, and although food was withheld for four days they refused to touch the dead bodies. On other occasions the rats were very vicious, fighting and killing the sick and feeble and eating the dead bodies.

As will be seen from the details of the work which follow, I failed to propagate the disease from rat to rat.

This feeble power of the infection to spread from rat to rat is a decided limitation to the virus as far as its practical application is concerned. It is easy enough to make the rats in a cage eat the cultures soaked in food, but in a wild state this would not be so easy, and if only the rats that eat the virus die, there is little advantage over phosphorous, arsenic, and other chemical poisons.

It is not considered necessary to give in full detail all the experiments made with the virus. A few of the more striking ones follow.

### NO. 1. SEVENTY RATS FED ON CULTURES IN INCREASING AMOUNTS.

Seventy white and gray rats were fed April 8 with 4 agar slants (original) of Danyz's virus No. 2, obtained direct from the Pasteur Institute. The cultures were shaken up with water and soaked on dry bread, according to the instructions. The agar itself was also fed to the rats. They ate it all up greedily, food having been withheld for a day previously.

| | Died. |
|---|---|
| Twelve days after feeding.......... | 1 |
| Fourteen days after feeding......... | 2 |
| Thirty days after feeding.......... | 1 |
| Thirty-one days after feeding........ | 1 |
| Thirty-two days after feeding....... | 1 |
| Thirty-three days after feeding...... | 1 |
| Total........................ | 7 |

Seven of the 70 rats died. One of the 7 died of peritonitis, due to a long nonmotile bacillus which had no resemblance to the organism fed to the rats. The others died of a disease evidently due to the ingestion of the cultures.

In most of the animals the small intestines were found to be the seat of inflammation with enlargement of the lymphatic glands. The spleen and liver showed little change. The lungs were often the seat of congestion and hemorrhagic inflammation—sometimes infarct. The ingestion of the virus causes a local reaction in the intestines, followed by an invasion of the organism into the blood, producing a septicæmia.

The surviving rats, remaining perfectly well to all appearances, were again fed with a fresh culture of the virus. They were now divided into 4 lots and fed with variable amounts in order to determine whether the small quantity ingested produced any immunity and whether the effect is proportionate tc the amount eaten.

### THIRTY-THREE RATS REFED WITH LARGE QUANTITIES OF BOUILLON CULTURES.

On May 16, after two days' starving, 33 of the surviving rats of experiment No. 1 were given a liter of a young bouillon culture. One-half of this was given as drink, the other half soaked on dry bread. The rats ate and drank most of it greedily. On May 17 and May 18 this was repeated. No other food was allowed; so that in all the 33 rats ingested almost 3 liters of the virus in three days.

| | Died. |
|---|---|
| May 20, four days after feeding ..... | 4 |
| May 21, five days after feding....... | 4 |
| May 22, six days after feeding....... | 1 |
| Total ........................ | 9 |

Nine of the 33 rats died. Death came rather suddenly. The others remained apparently healthy. An increased desire to drink probably indicated a feverish condition in some of them. Ordinarily rats die rather slowly from the effects of this virus. They have fever, show symptoms of distress, they are weak and prostrated, and refuse food for a day or two before death.

It, therefore, seems plain that the ingestion of a small amount of the virus killed a few of the susceptible rats—7 out of 70, and left the survivors with a considerable protection, for, after feeding them for three days with overpowering doses, only 9 died out of 33.

### TEN RATS FED ON 10 C. C. OF BOUILLON CULTURE.

Ten of the rats that resisted experiment No. 1 were separated in a cage and subsequently fed with 10 c. c. of a young bouillon culture soaked on bread. This produced no effect.

### TEN RATS FED ON 2 AGAR SLANTS.

Ten of the rats that resisted experiment No. 1 were subsequently fed with 2 agar slants, shaken in water and soaked on bread in accordance with instruction of Danyz. This produced no effect.

### TEN RATS GIVEN DEAD RATS TO EAT.

Ten of the rats that resisted experiment No. 1 were placed in a separate cage and deprived of all food for four days, during which time rats sick and dead of the infection were placed in the same cage. They refused to touch the dead bodies. None of the 10 rats took the disease.

It is evident from the foregoing experiments that small primary doses are uncertain in their effects.

Another test was made, using large overpowering doses from the start.

### NO. 2. TWENTY-SEVEN RATS FED ON VERY LARGE QUANTITIES OF CULTURE.

Twenty-seven gray and white rats were deprived of food for twenty-four hours and then given (April 11) a liter of a young bouillon culture of the virus soaked on bread. In addition they were given another liter of the culture as drink, and six agar slants. They ate most of the bread during the night, and drank a considerable quantity of the liquid. Two days following (April 13) they were given another liter of a young culture soaked on bread. On this day the rats seemed sick, 1 died. They ate little or none of the bread, but licked up all the liquid. On April 14, the third day, the rats were sick, very thirsty, refused food, 2 were dead. From this on, the rats refused food and succumbed one after another until all were dead.

| | Died. |
|---|---|
| Two days after feeding | 1 |
| Three days after feeding | 2 |
| Four days after feding | 10 |
| Five days after feding | 7 |
| Six days after feeding | 7 |
| Total | 27 |

All these 27 rats, then, died within a week after being fed with an overpowering amount of the virus.

The result, therefore, seems to depend on the amount ingested as well as the virulence of the cultures.

### RATS AND MICE FED ON TOXINS.

A toxin was made by growing the organism in flasks containing 1 per cent peptone bouillon. The flasks were left over night in the incubator at 37° C., and then the growth continued at room temperature. At the end of two weeks the cultures were killed by exposing the flasks to 70° C. for several hours. The resulting product was fed to mice and rats, and was found to produce a certain toxic effect. It seems very probable that the toxin favors the pathogenic action of the organism. This question, not having a direct practical bearing on this particular subject, will be discussed at another time. It may be stated here, however, that animals fed on the toxin seem to acquire a certain amount of immunity against the virulent cultures.

### VARIOUS METHODS OF FEEDING.

Rats were fed upon the organs (livers and spleens) of other rats dead of the infection, and in other ways, without producing any effect.

### THE SURVIVORS FED ON LARGE QUANTITIES.

Finally, I had about 60 rats, which had survived the various experiments, on my hands. I fed them all with large amounts of cultures in order to get rid of them. They were given as much of the cultures as they could be induced to eat, every day for a week, without apparent effect. The immunity produced is, therefore, very positive and lasts at least several months.

### SUMMARY.

The substance known as Danyz's Virus consists of a culture of a bacillus belonging to the para colon group. It appears to be identical with the bacillus typhi murium of Loeffler.

This organism is naturally pathogenic for mice, in which rodents it sometimes produces spontaneous epizootics. Its virulence has been raised and specialized by artificial means in the laboratory, so that it has become fatal for rats by ingestion. This artificial virulence is not very stable. It may be maintained under special conditions a few months, but the virulence is apt to fall off, especially on exposure to light and air.

As far as rats are concerned the effect depends somewhat on the amount ingested. Large amounts are frankly fatal. Small quantities are uncertain. Rats that survive the ingestion of the virus are rendered immune. Such rats may eat large amounts of the virulent virus with impunity.

The infection caused in rats by eating the virus has feeble power of propagating itself from rat to rat. It, therefore, cannot produce a widespread epizootic among these rodents. In practical use it must be spread around so that as many of the rats as possible will eat it.

In many respects it resembles a chemical poison, with this great advantage, viz., that it is harmless, in so far as known, to man and domestic animals. It has the great disadvantage, that chemical poisons do not possess, of rendering the animals immune by the ingestion of amounts that are insufficient to kill, or by the ingestion of cultures that have lost a little of their virulence.

In my experiments I succeeded in killing less than half the number (46 out of 115) of rats fed. The conditions in a cage are so much more favorable for the fatal action of the virus than could possibly be the case in nature that it is safe to assert that a less number would succumb in a wild state.

The virus may, therefore, be used as one of the menas in the fight against rats, but it is far from being a sure means of exterminating these rodents in a particular place.

# Sterility in Women.

By Lewis S. McMurtry, M. D., Louisville, Ky.
Professor of Gynaeology and Abdominal Surgery in the Hospital College of Medicine.

In the entire scope of gynecic surgery I doubt if any subject has received more attention than sterility. The literature of the subject is vast and dates back to the early age of medicine. A review of this literature in conjunction with recent research will impress the scientific investigator with the unsatisfactory state of available and practical knowledge of the subject. This is due for the most part to the fact that sterility must be attributable to numerous causes involving numerous organs, thus rendering definite consideration of its pathology and treatment distinct from associated pathologic conditions impracticable.

The percentage of married women between fifteen and forty-five years of age who are sterile is estimated by various observers to be between seven and twelve percent. Mathews Duncan placed the percentage at ten. With increasing population, the vast growth of cities, accumulating wealth, the pursuit of fashion, and adoption of artificial modes of life, this percentage is very much increased in the present age.

The importance of this subject in its sociologic, domestic, and kindred general relations and bearings, while recognized, are beyond the scope of the present occasion. Likewise the consideration of those congenital causes of sterility, or of those acquired defects in the reproductive organs, such as surgical removal of the uterus, ovaries, and fallo-

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*Read before the Louisville Medico-Chiurgical Society, April 21, 1901.

pian tubes, or permanent atrophy of these organs, is beyond the limits of this discourse.

Two necessary conditions must obtain for normal conception:

1. That the ovum and spermatozoa shall meet and fertilization occur. While this is believed to occur in the fallopian tubes, it doubtless can obtain in any part of the tubo-uterine mucous tract.

2. That the fertilized ovum shall find a proper nidus in the endometrium. The endometrium is the placenta-forming organ, which is the great center of force in the growth and development of the ovum. The endometrium must shed its epithelial covering, and its retriform tissue must become filled with lymphoid cells, from which the decidua must arise.

The function of menstruation and the coincident changes in the endometrium find their objective point in the preparation of a suitable nidus for the development of the fertilized ovum.

Excluding those general causes of arrested development, improper education and corpulence, the causes of sterility in women may be thus enumerated: Vaginismus, atresia of vagina, stenosis of the os, usually accompanied by deformity of the cervix (ante-flexion, conical cervix), uterine displacements, lacerations of cervix, tumors, inflammatory lesions of the peritoneum, ovaries, and tubo-uterine mucosa.

The two first causes above enumerated are obstacles to coition, can be readily detected by examination, and are amenable to well-known methods of treatment. Although stenosis of the os uteri and cervical canal is among the rarest causes of sterility, it is the assumed cause in almost every case which is presented to the physician for treatment. It is well known to every gynecologist that almost every case of sterility or delayed conception which comes under observation has previously undergone dilatation of the cervix for a fancied stenosis of that canal. The same criticism is applicable to the operation for sterility practiced by Simpson and Sims of incision of the cervix.

No operation is more misapplied than this one, and in a large proportion of cases it is the initial step in the establishment of chronic inflammatory disease of the tubo-uterine mucous tract. This statement may be emphasized when applied to those cases of sterility attributed to cervical stenosis in which the stem is applied to maintain patency after dilatation.

Inflammatory diseases of the uterus, ovaries, fallopian tubes, and pelvic peritoneum constitute the cause, in the great majority of cases, of sterility, and the prevention and treatment of sterility is, for the most part, the prevention and control of infection of the tubo-uterine mucous tract.

The anatomical arrangement of the female genital organs makes it a priori probable that bacterial invasion plays a predominating rôle as a causative factor in all classes of inflammatory diseases.

Doderlein says: "Above any site in the body, the uterus seems to be the place favoring bacterial invasion and colonization. The open connection between the uterus, the vagina and the outside world; the many chances for transport of germs which are so obvious particularly during sexual life; stagnating secretions protected against desiccation and kept at a brood-oven temperature—all these factors unite to a priori impress us how well adapted the interior of the genitalia is for bacterial invasion and consequent disease."

Yet it has been found that in spite of all these apparently favorable factors the internal organs of the healthy woman are not easily reached by the pathogenic bacteria, and are, as a rule, sterile. The vulva, according to the unanimous verdict of all investigators, is frequently the seat of pathogenic bacteria, particularly the ubiquitous ordinary pyogenic microorganisms. The vagina, however, in healthy women, contains pathogenic bacteria only in a small number of the cases examined under the proper precautionary measures to avoid contamination. It, on the other hand, in healthy women, always harbors a great many non-pathogenic bacteria. Yet fully virulent pathogenic microbes, introduced experimentally, as has been done by Koenig, Doderlein, and others, are speedily killed in the healthy vagina. Clinical and other experience has abundantly shown that the vagina possesses the power of self-purification, which may be speedily lost under certain conditions.

Adhesions, thickening and obstructive, so commonly resulting from inflammatory changes, may readily impede the passage of the ovum, while pathological secretions and inflammatory products may destroy its vitality. This cause of sterility is apparent in the large number of sterile women who have conceived once, and having been infected in connection with abortion, miscarriage, or labor, remain sterile in consequence of the changes resulting from inflammatory lesions.

Recurring to the researches and experiments of Doderlein, showing that under normal conditions the vagina has the power of self-purification through the power of its secretions, a practical means of preventing infection and consequent sterility is apparent. The modern idea that pervades the general professional mind, and adopted by the laity, that the frequent, often daily, use of the vaginal douche is a preventive of infection in healthy women is shown to be erroneous. The habitual daily use of the vaginal douche in health is productive of much mischief. The protection against infection established by nature is washed away; unskilled douching itself often carries infection to the cervical mucosa, whence it extends along the mucous surfaces. The vaginal douche, while a valuable agent in treating disease, is altogether misapplied as a routine part of the toilet or as a preventive of infection in healthy women. Many women are sterile in consequence of the inflammatory lesions begun in efforts to prevent conception early in their married life.

As a conclusion of this imperfect consideration of this subject, it may be stated that sterility may result from diseases involving any part of the genital system of organs, from the pelvic peritoneum to the vulva; that the most potent causes originate in the changes following inflammation. Hence, for the most part, the prevention and treatment of sterility in women is synonymous with the prevention and treatment of pelvic inflammation, one of the most elaborate chapters in gynecology.

## DISCUSSION.

Dr. A. M. Cartledge: Sterility is always a symptom, not a disease, and indicates that there is usually a lesion in the genital apparatus somewhere. For a man to scientifically address himself to the subject of sterility in women requires an appreciation of all the gynecological conditions we are called upon to treat, because practically everything we are called upon to treat in gynecological disease is capable of producing sterility as one of the symptoms, although, remarkable to relate, we occasionally find an enormous array of gynecological conditions existing in the same patient, and sterility is not a symptom in the case. That makes the subject of more interest in its study.

I am in the habit of considering the uterus as the middle ground; we have the sperm cell to ascend to this middle ground, and the ovum to descend. Anything that prevents the descent of the ovum, or the ascent of the sperm cell, will cause sterility. Like Dr. McMurtry, I think the mechanical causes of sterility have been greatly exaggerated.

I have long since come to the conclusion that dilatation of the cervix rarely does good; it is the least effective of all the methods of treating sterility, and is the most commonly employed method. A cervical canal that will permit the escape of the menstrual fluid is not a barrier per se to conception. I have seen one instance where I thought a long cervix caused sterility, the sperm cells being placed at a disadvantage by being deposited in the upper portion of the vagina far beyond the cervical opening, and could not gain entrance to the long conical cervix. Aside from the so-called conical cervix with a small os, I do not believe a conical cervix is a barrier to conception. Of one thing I am satisfied, that the majority of cases are amenable to treatment. We should divide all cases into those beyond the pale of hope, and those that promise something from the various methods of treatment. Of those beyond the pale of hope, infantile uteri and complete stenosis of the tubes are among the most common. Those rare constitutional and systemic conditions which have lithemia as a basis may sometimes be the cause of sterility. All the so-called mechanical and inflammatory effects, I am satisfied, will often be found very simple in character. I have had three cases of sterility which were caused by endocervicitis with marked secretion of mucous, or a cervical mucous plug. In one of my cases the woman had been sterile for five years; she was anxious to have a child, and the mucous plug spoken of was the only lesion found. Applications were directed to the removal of this catarrhal condition, incising the glands in this situation deeply and turning them out, applying nitrate of silver, resulting in a cure.

I have never relieved a case of sterility by dilitation of the cervix, because I agree that this is not the cause per se; some other obstruction must exist.

As to the question of the destruction of the sperm cells by toxines developed during the existence of certain inflammations in the genital tract—that this does occur in certain systematic taints there is no room to doubt. That is to say, there are probably given off during growth and multiplication of certain bacteria, toxines that immediately destroy the sperm cell; in cases where we can find no obstacle to the ascent of the sperm cell, nor can we find any mechanical difficulty in descent of the ovum, union takes place, but fertility does not occur. To make it more reasonable to suppose there is something in the germs that give off these toxines is the fact that some women with quite a marked chronic endometritis conceive readily. Women, for instance, who have a chronic purulent endometritis, pus constantly coming from the uterus, sometimes conceive.

In a woman with large lacerations of the cervix that have healed, where the pavement epithelium lining the vaginal portion of the cervix has ulcerated and healed perfectly smooth, that woman is more liable to conceive than a woman who has had no laceration of the cervix. Yet when there is a laceration with granulation tissue and a chronic infection process going on, the lacerated cervix may possibly be the cause of persistent sterility.

It would be rash to promise any woman that you could cure her sterility. We must recognize that multiple causes of sterility may exist in the same individual, and these may all be amenable to treatment. One or two of the conditions may be amenable to treatment, the others may persist despite all our efforts at relief.

Certainly a careful physical examination ought to detect any lesion; then, if we have not an infantile uterus or an occluded tube, the case is hopeful. In looking up the subject at one time I enumerated thirty-eight known causes of sterility, from chronic ovaritis, salpingitis, endometritis, down to the common one of slight infection about the cervix, endocervicitis, and on down to the vagina probably a chronic infection, so that the sperm cells are killed at their first deposit. We must remember, however, that the sperm cells are possessed of considerable vitality, and it only requires six or seven minutes from the time they are deposited in the vagina until they have entered the cervix. But I can readily see how some women may have an infectious process in the vagina; that the toxines given off from such process might kill the sperm cells before they can gain entrance into the cervix.

One thing more or less theoretical that is an obscure cause of sterility is where we have a slight endometritis, a little saneous discharge from a uterus which is normal in size, the cervix not occluded, where there is no misdirection of the cervix as a result of development of the uterus, the tubes are patulous, the woman menstruates normally, yet conception does not take place. Such a woman may not come under the head of obese. In such cases it is well to start out, if we can find no other cause for the sterility, upon the basis that there exists a deficiency in this woman's blood, probably lithemic in type; that the endometrial secretion is so altered as a result of this systemic condition that there is a toxine given off, and immediately there is death to the sperm cell of the ovum, ,and I believe that systemic treatment, change of climate, use of the various waters, etc., have led to conception in some of these women when all methods of local treatment had failed.

Dr. A. M. Vance: It might be well to examine the man in many of the cases of sterility in women; quite frequently in the man will be found the cause.

Dr. William Bailey: The prevention of sterility should be largely prophylactic, especially the preventing of such conditions as obtain in our present state of society—conditions involving, no doubt, the healthy integrity of the endometrium. I am not concerned in the surgical features of the subject, recognizing that there must be sufficient patent condition of the tubes in order to bring the ovum down, and then there must be a living germ, so that impregnation may take place. I agree with the essayist that sterility is largely due to an unhealthy condition of the endometrium.

I am glad to hear Dr. McMurtry declare himself against the indiscriminate use of the vaginal douche. I believe it is now carried on to such an extent that even women in health are almost universally using the vaginal douche. Within less than three months I heard a conversation between a number of women, in which one of them stated, to the horror of the others, that she had never taken a vaginal douche. They advised her to go to a doctor, and he would send her home to have a vaginal douche for cleanliness, if nothing else. While it may seem to be a quasi means of cleansing, I am thoroughly of the opinion that the dangers from infection by the methods and means used, the uncleanliness surgically of the ordinary douche apparatus is such as to endanger the woman more than any condition for which it is used. I am growing more and more opposed to its use, unless it is necessary by already infected conditions that must be combatted. The faculty that the vagina has of guarding the portal at this important place is a happy circumstance, and, for the most part, should be left to itself. The cleanly woman is one who takes care of herself externally, avoiding the introduction of germs as far as may be by cleanliness, but nature, in my judgment, can take care of the inside of the woman better than any means that we can adopt. We can all recall cases where we think great trouble has come from the usual habit of a vaginal douche after labor. I am at that point in my obstetric practice that I absolutely prohibit the vaginal douche being used unless I find conditions that warrant it for infection already set up. I believe a woman is safer without any douching than she is with it, as the douche is ordinarily administered.

Dr. H. H. Grant: My views are a little different from those expressed by the essayist. We must accept the views of those men who have given the matter special study, and who are competent to advise us, or else we should think for ourselves. It has seemed to me that not infrequently sterility is occasioned by a long cervix and displacement of the uterus, which causes occlusion of the lumen of the cervix by displacement of the uterus itself; and that not infrequently menstruation will occur regularly and practically to a physiological degree through this displaced uterus and curved cervix after much pain has been experienced in the gradual straightening of the tube. The menstrual fluid does not apparently escape freely for the first few hours of the beginning of the menstrual molimen, but after six or eight hours, during which time the uterus has been replaced and the curvation of the cervix has been more or less effaced by the efforts of nature to empty the uterus, then menstruation apparently goes on normally. In the interval between menstruation, however, the uterus gets back into position, which is abnormal for other people but normal for this uterus, which practically occludes the cervix, and it has been my experience in three instances to have fertility succeed dilatation of the cervix by force in women who had, in one instance for several years, and in two other instances for a year each been sterile. In each of these cases pregnancy succeeded the dilatation so promptly as to leave practically no doubt in my mind as to the fact that the dilatation had overcome the obstruction, and I reasoned with myself that the obstruction was of the nature that I have just endeavored to describe.

It has seemed to me that the chief causes of sterility are much as were suggested by Dr. Cartledge. I do not agree with him, however, in regard to the mucous plug causing obstruction and sterility; this plug is always present in the healthy cervix, and offers no obstruction to the sperm. Obstruction, however, I think, far more frequently the cause of sterility than anything else, with discharges which in themselves are of an acrid character and promptly destroy the vitality of the sperm cell. In addition to this, of course, is the further fact that the epithelium of the mucous membrane of the uterus is practically in many instances incompetent to retain the ovum even after it has become fertilized; or even in the tube itself there may be some obstruction which arrests the ovum out of reach of the spermatozoa. These, I think, are far more frequent causes of sterility than ordinarily believed, but the character of obstruction to which I have called attention is not an infrequent factor.

With respect to the vaginal douche, I have also entertained opinions about this which are different from those expressed by the essayist. They are based chiefly upon the fact that in women who are married, or in women unmarried in whom sexual intercourse is frequent, there is constantly introduced into the vagina, an organ which is not sterile and exciting a secretion which practically is not a normal one, at least in the virgin, and perhaps in the original intentions of nature is not a normal one. We are all familiar with the fact that in every animal, aside from the human being, sexual intercourse was apparently intended by nature only for the purpose of procreation, but in the human being it is indulged in frequently by those who have license even without the object of pregnancy, and oftentimes persistently after pregnancy has occurred. As this is the case, then it appears that the condition found in the vaginal tract in other animal life is not the same as found in the human being. Most of us are aware of the fact that in those individuals who frequently indulge in sexual intercourse there is increased secretion of the glands in the male as in the female, and that only frequent ablution will enable those individuals to preserve a condition of absolute cleanliness of these parts. While it is probably true that in the virgin there is no need for the use of the vaginal douche where no disease exists, in the female who is the frequent subject of sexual intercourse I am satisfied there is an unnatural discharge, and there is an additional difficulty of cleanliness which can be preserved by the careful use of a clean vaginal douche.

The position taken by Dr. Bailey is one I fully approve; but the conditions are different here; the uterus is dilated, the cervix oftentimes large enough to admit a little finger, and not only is the fluid itself thrown in by the syringe enabled to effect an entrance into the uterus, but even the tube may find its way through the cervix, and here is a source of infection, as has been stated. But in the unimpregnated female the condition is different. The cervical tract is closed under ordinary conditions by a plug of mucous, and it is exceedingly difficult to get the fluid to penetrate it, and it is only by the incessant involuntary movements of the spermatozoa that they ascend into the cervix through this mucous plug. It is not necessary, however, that this plug should be removed to result in pregnancy; the spermatozoa may ascend by the side of it, or even penetrate it. Their movements are not directed by any power on the part of the germ itself, but are involuntary and constant, and the life of the spermatozoa is sufficiently prolonged to allow them to gain entrance to the uterine cavity. For this reason I am satisfied it is not easy to throw into the uterus any fluid that might be used in a syringe or to wash into it any poisonous secretions that might be found about the vaginal walls. With these exceptions I am fully in accord with everything the essayist has said as to the character of the trouble.

Dr. F. C. Wilson: One of the causes of sterility not mentioned particularly by the essayist is the frequent efforts on the part of newly married couples to prevent conception; the use of douches of various kinds in order to prevent too early conception; as they term it. This too often results in sterility; in fact, I believe it is one of the prime causes. Of course this leads to inflammatory conditions and the various changes take place as mentioned by the essayist, and the practice ought to be condemned. When people of this class want children, they find they are unable to get them. Where a narrowed condition of the cervix can be detected by examination, sterility may be overcome by dilatation if that be the cause. That may not be the cause, but where a young woman suffers greatly from dysmenorrhea, and at the same time is sterile, a careful examination may detect a narrow cervical canal or a flexed uterus; I believe dilatation to a moderate extent—which would hardly amount to a surgical procedure, but, of course, ought to be done aseptically—will frequently overcome the difficulty and relieve the sterility. I have had cases of this kind where, after the measures suggested were carried out, conception promptly occurred, which was proof positive that the sterility had been relieved, and at the same time dysmenorrhea completely disappeared. If there is a constricted cervical canal and conception occurs, nature does the rest in a much more perfect way than the surgeon can.

Dr. Louis Frank: I fully agree in everything the essayist has said. The main point in the paper, the point that the essayist has thoroughly established, is recognized by all authorities to-day—viz., that sterility does not exist as a disease per se, or as a functional disorder, but is really due to some diseased condition—some pathological condition of the genital organs of the woman. I recognize, however, the fact that these lesions may be so slight in character, may be so obscure, so situated along the genital tract—about the ovaries, for instance, as would follow an old gonorrhea—a pyosalpinx which may have subsided, leaving a condition which results in sterility, though we cannot make out the cause by examination of the patient during her life. It is in many of these cases where without any demonstrable cause, sterility has extended over a long period of years in women who have been married fifteen or twenty years without any efforts at the prevention of conception, without any history of any mechanical lesion or pathological condition about the genital organs. Some of these cases have become at the end of that time pregnant and borne children. In these cases, if we could carefully examine pathologically the ovaries and tubes, we would find evidence of pre-existing disease.

I am perfectly in accord with what Drs. McMurtry, Cartledge, and Bailey have said in regard to the vaginal douche, and I certainly do not agree with Dr. Grant in this respect, nor in respect to displacements of the uterus per se producing sterility. These displacements may produce sterility secondarily by bringing about and maintaining a diseased condition of the uterus itself. There may be a secondary infection, the result of catarrhal conditions, which we improperly term endometritis, not inflammatory in character, but which will prevent conception. These conditions do not necessarily prevent ovulation, but they do prevent the transplantation of the ovum on the endometrium and the development of the pregnancy. That there may be stenosis of the cervical canal to such a degree as to permit of the outflow of the menstrual fluid and prevent the entrance of the spermatozoa I cannot conceive. We must remember that pregnancy sometimes takes place notwithstanding the presence of large tumors pressing upon the cervix and almost obliterating its canal; that ectopic gestation occurs in a tube where constriction is sufficient to prevent escape of the ovum into the uterus, still this does not prevent entrance of the spermatozoa into the tube.

In the cases mentioned by Dr. Wilson dilatation of the cervix was probably beneficial by producing alteration in circulation and thus improving the condition of the endometrium and permitting successful implantation of the impregnated ovum. In many women, and these would come under the same class mentioned by Dr. Wilson, the newly married, we have another element to consider, which is also true in the case of prostitutes, those who indulge in frequent suxual intercourse—namely, a congestion of the genital organs frequently repeated, which brings about a condition just as brought about by the cold douche; the uterus is chronically enlarged and congested, with alteration in circulation scufficient to prevent successful implantation of the impregnated ovum. I believe that frequently lacerated perineum will bring about the same condition, although this was not touched upon by the essayist. We also have to consider the open, flaccid vagina, which permits the easy emptying of the seminal fluid and spermatozoa, thus acting as a factor in the production of sterility.

I hardly agree with Dr. Cartledge that the mucous plug in the cervix would be an active factor in the production of sterility. It seems to me the spermatozoa possess sufficient vitality and motion to penetrate or pass alongside of this mucous plug and find their way into the cervix; and where mucous plugs have apparently been the cause of sterility I believe the condition was actually due to hyperacidity or alkalinity of the secretions, which prevented the life of the spermatozoa being maintained sufficiently long to permit them to come in contact with the ovum to be fructified.

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# The Fight Against Tuberculosis.

BY DR. ROBERT KOCH, OF BERLIN.

Tuberculosis is a preventable disease. It is not due to social misery, as was formerly supposed, although this goes far to foster it, but is due to a parasite, and the possibility of successfully combating it should have been clear as soon as its properties and manner of transmission became known. But it is not by the efforts of a few, but by the co-operation of many that the disease can be successfully dealt with. It seems that the time when this co-operation will be possible has come, for the knowledge of the parasitic nature of tuberculosis is now widespread, and our recent experience in combating several parasitic diseases has taught us how the conflict with pestilences is to be carried on. It must be by directing our measures against the cause, by using special means for each disease which are adapted to the etiology, and not by acting on any general plan. Examples of this are:

Plague.—Hitherto it was supposed that a patient suffering from plague was in the highest degree a source of infection, and that the disease was transmitted only by the patient and his surroundings. Now, however, it is known that only those patients suffering from plague pneumonia are centers of infection, and that the real transmitters are the rats, and it is high time that this knowledge be utilized in international as well as other traffic.

Cholera.—The main and most dangerous propagator of cholera is water, and therefore, in combating it water is the first thing to be considered. In Germany this principle has been acted on and has succeeded in exterminating the plague for four years.

Hydrophobia has been prevented after infection by protective inoculation, but manifestly the only proper way to combat the disease is by compulsory muzzling.

Leprosy is transmitted only by close contact, as in small dwellings and bedrooms. By vigorous segregation the dis-

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*Abstract of famous address at recent Congress of Tuberculosis.

ease was stamped out in Central Europe in the Middle Ages, and recently the same result has been accomplished more slowly by a less strict carrying out of the same measures.

These examples will suffice to show that we must strike at the root of the evil, and not squander force in subordinate ineffective measures. Now the question is, what has been done, and what is about to be done in the fight against tuberculosis that fulfills this condition? To determine this we must first inquire in what manner infection takes place. In a great majority of cases the disease has its seat in the lungs, and has also begun there. From this it may be concluded that the bacilli got into the lungs by inhalation. As to where the bacilli came from there is also no doubt—in coughing, and even speaking they are thrown into the air, and when sputum is dried and pulverized they get into the air in the form of dust. Other means of infection are not important. Hereditary tuberculosis is not absolutely non-existent, but is extremely rare. Transmission from animals has hitherto been regarded as of great importance, but the author shows in the following experiments that it is not so:

A number of young cattle which had stood the tuberculin test were infected in various ways with bacilli taken from cases of human tuberculosis; some by feeding directly with the sputum, some by injection under the skin, into the peritoneal cavity or into the jugular vein. None showed any symptoms of disease, they gained considerably in weight, and when killed at the end of six to eight months the organs showed no signs of tuberculosis. The result was entirely different, however, when bacilli from the lungs of other cattle were used. No matter how the infected matter had been introduced, after an incubation period of a week the severest tuberculous disorders of the internal organs broke out and after death extensive changes were found. With swine the same experiment yielded the same results, also with asses, sheep and goats. From these facts, which have been reached recently also by Smith, Frothingham, Dinwiddie and Repp, the author maintains that human tuberculosis differs from bovine and cannot be transmitted to cattle. As to the susceptibility of man to bovine tuberculosis, it has always been held that as tubercle bacilli occur very frequently in large numbers in milk and butter, which is consumed by nearly all the inhabitants of large cities, infection of the intestines must often occur, especially in children. This, however, is not the case. Among 3104 post-mortem examinations of tuberculous children, Biedert observed only sixteen cases of primary tuberculosis of the intestines, and it is by no means certain that these were due to bovine tuberculosis, but more likely to swallowing bacilli from other cases of human tuberculosis. Animals are not susceptible to cultures of bacilli from these cases. If a susceptibility of the human to bovine tuberculosis does exist it must occur very infrequently.

Having proved that the only main source of infection is the sputum of consumptive patients, what is to be done to combat the spread of the disease? It is not only impossible, but also unnecessary to consign all persons having tubercle bacilli in their sputum to hospitals. The well-to-do are able to take care of themselves and prevent the spread of their disease to their fellows. It is among the very poor who are crowded together under unsanitayr conditions, that we find the real breeding place of the disease, and it is to the abolition of these conditions that our attention must first be directed. If we are not able to rid ourselves of this danger at present, all we can do is to remove the patients to places where they themselves can be better taken care of and their friends protected; and this can be done only in suitable hospitals. In general hospitals advanced cases are admitted with reluctance and discharged as soon as possible, and the expense, owing to the long duration of the illness, is a great burden. This would be changed if we had special hospitals in which patients were taken care of for nothing, or at a very moderate rate. To such they would readily go, and they could be much better taken care of than is now the case. The execution of such a project would require the outlay of a considerable sum, and until it could be accomplished much could be done in the way of special wards in which the charges would be small. England is the only country that has taken up this idea to any extent, and there is no question of the diminution of tuberculosis in England. This is the most important means of combating the spread of tuberculosis, and offers a wide field of activity to the state, to municipalities, and to private benevolence. As it will probably be a long time before this can be accomplished, we must resort to other measures which will serve as a supplement and temporary substitute for it.

Among such measures obligatory notification of those cases which by reason of the domestic conditions are sources of danger to those around them is specially valuable. We need it to inform ourselves as to the dissemination of the disease, to learn where help and instruction can be given, but especially for purposes of disinfection. In New York this plan has been successful and has not given rise to the evils which were feared. Another measure, closely connected with notification, namely, disinfection, must be effected when consumptives die or change their residence. Not only the dwellings but the infected beds and clothes ought to be disinfected.

A further measure is the instructing of the people as to the infectiousness of tuberculosis and as to caution in intercourse with consumptives. It is to be desired that the instructions be made shorter and more precise than they generally are, and that special emphasis be laid on the avoidance of the use of bedrooms and small workshops with consumptives. Another measure that has recently come into the foreground is the establishment of sanatoria for consumptives. That tuberculosis is curable in its early stages is an undisputed fact, but the question is whether enough can be cured this way to have any appreciable effect on the total number. Reports show that about 20 per cent of patients are cured by treatment in sanatoria, and in Germany, where provision is being made for treating 20,000 cases yearly, 4,000 will leave the institution every year as cured. But as there are 226,000 persons in Germany who are past hope of cure, the success of the sanatoria seems too small to have much effect on the disease in general. Much more can be accomplished by the recognition of the danger of infection and cousequent greater caution in intercourse with consumptives, as is shown by a decrease of about 10 per cent in less than ten years in Prussia, and a decrease of 35 per cent in New York in fifteen years. Sanatoria may be made considerably more efficient than they now are, but will never render the other measures superfluous.

Among the most promising beginnings that have been made in the combat against tuberculosis the author mentions the consumptive hospitals of England, the regulations regarding notification in Norway and Saxony, the organization created by Biggs in New York, the sanatoria and the instruction of the people

**SANATORIA FOR CONSUMPTIVES IN THE UNITED STATES AND THE CANADAS.** From advance sheets of the Medico-Legal Journal( September number, 1901), we find by the report of Clark Bell to the London Congress of Tuberculosis, that in the United States of America the question of sanatoria for the general government is under the charge of the war and the navy departments; and that these are for the benefit of the soldiers and sailors of the army and navy of the United States, and are in charge of the surgeon generals of the army and navy respectively.

Geo. M. Sternberg, M.D., surgeon general of the army, gives the location and officers in command of the government hospitals for the army as follows:

Lieut. Col. Alfred C. Girard, Commanding U. S. General Hospital, Presidio, San Francisco, California.

Major George H. Torney, Commanding Army and Navy General Hospital, Hot Springs, Ark.

Major A. H. Appel, Commanding U. S. General Hospital (for tuberculosis), Fort Bayard, New Mexico.

Major Wm. C. Borden, Commanding U. S. General Hospital, Washington Barracks, D. C.

Major D. M. Appel, M.D., Surgeon U. S. Army, Commanding the U. S. General Hospital for the treatment of pulmonary tuberculosis at Fort Bayard, New Mexico, reports that 283 tubercular patients were treated there during the past year.

Walter Wyman, M.D., Supervising Surgeon General of the United States Marine Hospital Service at Washington, gives the official list of government marine hospitals and quarantine stations issued Jan. 1, 1899, with a list of all his assistants and officers in the hospital service of the government in the naval service as follows.

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| In the North Atlantic district, hospitals...... ...... ...... ..... | 3 |
| At Boston, Mass.; Portland, Me.; Vineyard Haven, Mass. | |
| In the Middle Atlantic District, hospitals...... ...... ...... .... | 2 |
| At New York City; Delaware Breakwater (Lewes, Del.). | |
| In the South Atlantic district, hospitals...... ...... ...... ...... | 2 |
| Baltimore, Md.; Wilmington, N. C. | |
| In the District of the Gulf, hospitals. | 3 |
| Key West, Fla.; Mobile, Ala.; New Orleans, La. | |
| In the District of the Ohio, hospitals...... ...... ...... ...... | 3 |
| At Louisville Ky.; Cincinnati; Evansville, Ind. | |
| In the District of the Mississippi, hospitals...... ...... ...... .. | 3 |
| At St. Louis; Memphis; Cairo, Ill. | |
| In the District of the Great Lakes, hospitals...... ...... ...... .. | 3 |
| Chicago, Cleveland, Detroit. | |
| In the District of the Pacific, hospitals...... ...... ...... ...... | 3 |
| Total Hospitals, | 22 |

In regard to state hospitals, Mr. Clark Bell says:

"The hospital at Fort Stanton, New Mexico, is devoted to the care of the consumptive patients among the sailors, and he refers to his report which is too voluminous for even an abstract in a paper like the present.

"The report of Dr. M. J. Rosenau, Past Assistant Surgeon, to the American Congress of Tuberculosis of 1900, which is published in the Bulletin of that Congress, part I. of vol. II. at page 48, to which I refer: Dr. Rosenau says that the death rate among the 100,000 sailors which compose the clientele of the Marine Hospital Service, has been for the past ten years from tuberculosis, one-fourth of all the deaths or 25 per cent., many times exceeding the death rate from any other single disease. That the Marine Hospital Service treats from 800 to 1200 cases of tuberculosis annually. Assuming that the ratio of deaths by tuberculosis in the United States, is as claimed, seven per cent. of all deaths, Dr. Rosenau claims that the mortality among sailors is three and a half times larger than the average.

"Dr. W. D. Bratton, under direction of the Surgeon General, prepared a report in favor of New Mexico as a suitable place for a sanitarium for consumptives.

"Secretary L. J. Gage detailed Past Assistant Surgeon J. O. Cobb to examine the abandoned military reservations, for a suitable site, and he reported in favor of Fort Stanton, New Mexico. President McKinley, April 1, 1899, transferred this reservation and devoted it to the marine hospital service, and cases of tuberculosis may now be sent from any of the marine hospitals to the Fort Stanton Sanitary Ranch for treatment. The fort Stanton Hospital now isolates the tubercular sailor at this hospital, so that all the inmates at other hospitals are no longer exposed to infection, and probably places the consumptive sailor in the most favorable position for recovery now existing anywhere in the world.

"In the United States the questions relating to the construction of hospitals by the government under the American autonomy is under the jurisdiction and authority of the several states and rests upon action by the state legislatures.

"The question of sanatoria for consumptives is practically in its infancy, or at its inception and in the majority of the states of the American Union no provision has been made by state legislatures."

The question of establishing state hospitals or sanatoria for tubercular subjects, has been presented to most of the legislatures of the several states, and in many instances bills have been prepared, but so far very few have been passed, but the agitation of the subject is comparatively of recent date, and time will be necessary to convince the people in general of the necessity and usefulness of these institutions.

The legislature of Minnesota last year passed the following act, and the governor has appointed the commissioners in compliance with the instructions, of whom Dr. Rogers, of St. Paul, Minn., is chairman. The commissioners are now considering the matter of a suitable location for the sanatoria.

Chapter 300—S. F. No. 502.—
Laws of Minnesota for 1901.

An act to appoint a commission to investigate the advisability of establishing a state sanatorium for consumptives, and to appropriate money therefor.

Be it enacted by the Legislature of the State of Minnesota:

Sec. 1. That within thirty (30) days after the passage of this act, the governor shall appoint three (3) persons, residents and freeholders of this state, whose duty it shall be to investigate into the advisability of establishing a state sanatorium for consumptives.

Sec. 2. Should said commission deem it advisable for the state to establish such an institution, then it shall become their duty to ascertain what location would be the most desirable, and what building or buildings would be most suitable for such sanatorium.

Sec. 3. Such commission shall render a full report of their investigations and doings under this act to the legislature of the state to convene in the year 1903.

Sec. 4. Each member of said commission shall, before entering upon the performance of his duties as such member, take and subscribe an oath that he will faithfully perform his duties as member of said commission, which said oath, with the certificate of the officer administering the same, shall be filed in the office of the secretary of state.

Sec. 5. Said commission shall receive no salary or compensation for their services, but they shall receive their necessary expenses incurred in their performance of their duties under this act.

Sec. 6. To carry into effect the purpose specified in this act there is hereby appropriated out of any money in the state treasury not otherwise appropriated, the sum of one thousand dollars ($1,000).

Sec. 7. This act shall take effect and be in force from and after its passage.

Approved April 13, 1901.

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COMPULSORY VACCINATION IN LUMBER CAMPS, &c. On the 13th day of August there was a meeting in Duluth of delegates from Minnesota, Wisconsin and Michigan, to consider ways and means to stamp out small pox in the lumber camps of the states named. The disease of small pox has become so prevalent that it was deemed prudent to call this meeting. Secretary Bracken, of the State Board, was present, and made suggestions, which are embodied in the resolutions adopted, as follows:

Resolved: First—That the state board of health appoint medical inspectors to act as experts in the northern part of the state, to visit suspected cases in districts where there are no medical health officers. That such inspectors superintend the removal of all those ill with a contagious disease to a suitable quarantine hospital or place for quarantine, giving such patients over to the control of the local board of health or the county board of health. That such inspectors shall receive a compensation from the states at the rate of $2 a visit, with mileage one way at the rate of $1 per mile. The inspectors shall make note of the residence (county or state) of any patient who may come under their observation. They must also report their action at once to the state board of health.

Second—That the county board of health make arrangements with local authorities to receive contagious disease cases at a reasonable per diem rate, or, in lieu thereof, establish country quarantine hospitals at reasonable points:

Third—That the owner, manager, agent or foreman or other person in charge of any lumber camp or other industries in which men are employed shall require vaccination as a condition of employment.

Fourth—That the state inspectors shall be prepared to vaccinate at any camps at the expense of the men themselves, the employers or county for the material.

Fifth—That in connection with the camps, works or dwelling, or convenient groups of camps, works or dwellings coming under these regulations there shall be constructed a building, or, in lieu thereof, a double-walled tent or tents shall be kept on hand, with floor or floors, and with facilities for heating and ventilation, for the reservation of any employe who may become sick: and should any disease of a contagious nature, as defined by the public health laws, break out, the hospital or tent must be located by the physician in charge of the patient, in a position satisfactory to any health officer authorized by the state board of health to inspect the camp or works.

Sixth—That all disinfection must be conducted by a competent disinfector.

Seventh—That all camps in which

small-pox has existed during the past year must be immediately disinfected or quarantined until they have been thoroughly disinfected or burned. The same regulations apply to the contents of all such campe. The expense of disinfection shall be borne by the owner of the camp, and the disinfector employed must be subject to the endorsement of the State Board of Health.

Eighth—That as the state law of Minnesota provides that the expenses of caring for persons infected with a contagious disease shall be borne by the person infected, if he is able;

Resolved that all employers of laborers withhold from such employes who may become infected with a contagious disease, and to whom a salary is due at the time of such infection, all moneys or wages due him until his discharge from the hospital or place of detention; that moneys or wages be withheld from any sich employes with suspicious symptoms until the diagnosis of the disease has been determined by a competent physician.

The above resolution will be submitted to the state board, and will no doubt be acted upon.

SOUTHERN MINNESOTA MEDICAL ASSOCIATION. Through the courtesy of Dr. W. T. Adams, secretary of the above organization, we are in receipt of the proceedings of the meeting at Rochester.

The tenth annual convention was held in the above city August 1. Physicians were there from Minnesota, Wisconsin, northern Iowa and South Dakota. St. Paul and Minneapolis were well represented. In all over 100 were present. The sessions were held in the new Masonic Temple lodge rooms.

The convention was called to order at 10:30 by Dr. E. D. Keys of Winona, the president, who gave a short and stirring address. This was followed by an excellent paper by Dr. Franklin Staples of Winona, who is now the oldest physician in southern Minnesota. He was unable to be present, but his paper was given its place, and a resolution of thanks was adopted. Dr. J. W. Andrews of Mankato, had an interesting paper on "Cesarean Section versus Craniotomy," after which "Anaesthesia," by Dr. W. T. C. Heise of Winona, was the subject for a long and earnest discussion.

The afternoon session opened with the election of officers, which resulted as follows: Dr. A. S. Adams, Rohcester, president; Dr. M. J. Hart, Le Roy, first vice president; Dr. A. B. Stewart, Owatonna second vice president; Dr. W. T. Adams, Elgin, secretary and treasurer.

The program was as follows: "Surgical Aspect of Cancer and Ulcer of the Stomach," Dr. W. J. Mayo, Rochester; "Placenta Prævia," Dr. R. C. Dungan of Eyota; "Report of Placenta Prævia Centralis with Twins," Dr. J. A. Gates, Kenyon; "Concealed Hemorrhage in the Pregnant Uterus," Dr. H. H. Witherstine, Rochester; "Some Inflammatory Troubles of the Ear," Dr. L. H. Munger, Winona; "Congenital Hernia," Dr. C. H. Mayo, Rochester; "Smallpox," (a) Dr. Donald B. Pretchard, H. O., Winona; (b) Dr. A. S. Adams, H. O., Rochester; (c) "Smallpox in Minnesota," Dr. T. L. Hatch, Owatonna. The general discussion was opened by Dr. H. M. Bracken, St. Paul, secretary of the State Board of Health; "Paralysis of Bladder and Rectum from Injury," Dr. A. L. Baker, Kasson; "Clinic. Chronic Nervous Diseases," Dr. A. F. Kelbourne, superintendent Rochester state hospital.

Two papers were also given by Drs. G. E. Campbell of Wykoff, and G. A. Love, of Preston.

The following were among those present: Drs. J. B. Moore and F. C. Todd, Minneapolis; H. M. Bracken and B. Foster, St. Paul; J. L. Lynch, J. B. McGaughey, L. H. Munger, Winona; E. D. Steel, Mankato; E. W. Ayres, Richburg, N. Y.; C. B. Hill, Pine Island; A. J. Button, Hammond; J. B. Waiste, Plainview; J. E. Creive, Zumbrota; C. A. Cooley, Madelia; C. E. Fawcett, H. R. Russell and T. W. Burns, Stewartville; E. E. Harrison, West Concord; B. E. Dimitt, Red Wing; J. W. S. Cott, St. Charles; L. E. Evans, Osage, Iowa; O. T. Way, Claremont; A. L. Baker, Kasson; C. H. Woodruff, Elgin.

The meeting closed with a banquet.

ACTION OF RADIUM RAYS. H. Becquerel has confirmed, by an unpleasant experience, the fact first noted by Walkoff and Giesel, that the rays of radium have an energetic and peculiar action on the skin. Having carried in his waistcoat pocket for several periods, equal in all to about six hours, a cardboard box enclosing a small sealed tube containing a few decigrammes of intensely active radiferous barium chloride, in ten days' time a red mark corresponding to this tube was apparent on the skin; inflammation followed, the skin peeled off and left a suppurating sore, which did not heal for a month. A second burn subsequently appeared in a place corresponding to the opposite corner of the pocket where the tube had been carried on another occasion. P. Curie has had the same experience after exposing his arm for a longer period to a less active specimen. The reddening of the skin at first apparent gradually assumed the character of a burn; after desquamation a persistent suppurating sore was left which was not healed fifty-six days after the exposure. In addition to these severe "burns" the experimenters find that their hands, exposed to the rays in the course of their investigations, have a tendency to desquamate, the tips of the fingers which have held tubes or capsules containing very active radiferous material often become hard and painful; in one case the inflammation lasted for fifteen days and ended by the loss of the skin; and the painful sensation has not yet disappeared, after the lapse of two months.—Comptes Rendus.

LEPROSY AND THE MOSQUITOES IN VENDEE, FRANCE. In a former Bulletin we have described the existence of a leprous centre in the department of Vendée, and made the remark that it was very curious to see that part of Poitou so afflicted, then that the Deux Sevres, the Lower Loire, and Charente, neighboring departments, being free or nearly so.

On the other hand we will cite or quote some case or condition that has been presented to us and we may say that we have chiefly met on the side that we frequented, that is to say, on the borders of the mountain marshes. Then we have tried on the spot for more proof; but the physicians of the country are not interested in questions of pure science, and have given us only the most vague information. It appeared to us as the result of that little inquiry or investigation, and by observation in Vendée, the cases are more numerous upon the borders of the marshes of the northwest and the southeast than elsewhere, that is in the Bocage.

This remark has its interest now; in fact, we claim publicly, that leprosy is a malady that can be spread or propagated by mosquitoes. From this one can understand very well that it is communicated more in the regions of the marshes, and therefore, by Anopheles, than elsewhere, and in time into the centres of intermittent fevers of the Vendée.

The statistics of leprosy in France

argue besides, this very day, in a measure clearly enough in favor and in the interest of the animal origin and of the mosquitoes. In face the two departments the most distressed near us, are on the Cotes du Nord and the Landes; consequently the Cotes du Nord is a department for mosquitoes.

It is then an idea to well consider. Living for several weeks in the midst of the marshes of the Vendéan region, we are going to give a personal opinion on that point.

Marcel Baudouin,
Editor-inChief of Medical Gazette of Paris.

RECENT LICENTIATES OF WISCONSIN. Twenty-eight of the applicants who took the recent examination at Madison for license to practice medicine, before the State Board, passed and will receive license. One of the successful ones is a colored lady, Miss Rosannah Russell, who came from Muncie, Ind., but who it is understood will practice medicine in Milwaukee.

Two candidates who took the examination for license as osteopaths are not yet reported upon, the osteopath member of the board, Mr. Jorris, not having been appointed when the examination was held, and it being his province to go over their papers. The succesful ones are:

William V. Bryant, Julius C. Sommers, Patrick H. O'Malley, Harry B. Farnsworth, Madison; Gregory J. Egan, Patrick E. Mills, Wilber D. Cook, Beloit; Rosannah Russell, Muncie, Ind.; Alfred Belitz, Waumandee; William O'Dwyer, Dane; Gentz Perry, Amery; Louis F. Garlock, Racine; Edwin A. Streich, Oshkosh; Thomas H. McCarthy, Stoughton; Warren R. McCombe, Muscoda; Henry W. Chamberlain, Bangor; Benjamin J. Ochsner, Richland Center; Owen Evans, Spring Valley; William O. Thomas, Harrison; Hugh P. Conway, Elroy; Herbert M. Trankle, Bloomer; Jacob J. Zaun, John J. Zaun, Pewaukee; Charles E. McCallum, Appleton; James H. Van Voorhis, Shulsburg, Carl W. Lockhart, Mellen; Orris O. Force, Pardeeville; Henry E. Luehrs, Hayton.

COL. OF MED. OF THE UNIVERSITY OF ILL. There have been reports that on account of a fire at the above institution (The College of Physicians and Surgeons, Chicago) on the 25th of June, it has been crippled, but Dr. Frank B. Earle, the secretary informs the Medical Dial that the administration of the college has suffered no serious disturbance in consequence of the fire, and that it is now better housed and equipped than ever before and running quite as smoothly.

THERE ARE SAID TO BE 20,000 people in the United States suffering from locomotor ataxia. Among these a society has been formed, which has raised a fund of $100,000, which will be presented to the individual who will discover a cure for the disease. Who will discover the bacillus?

NORTHWESTERN UNIVERSITY MEDICAL SCHOOL. Dr. A. P. Ohlmacher has been appointed Professor of Pathology in the Northwestern University Medical School (Chicago Medical College). Dr. Ohlmacher has been connected with the Pathological Laboratory of the Ohio Hospital for Epileptics at Gallipolis, Ohio, and will for the time being continue the direction of that Laboratory. He is very favorably known through his contributions to pathology, particularly of late in reference to the morbid anatomy of epilepsy, and brings to his new position an immense experience in laboratory methods and the practical work of the pathologist. At the same time he has abundantly proven his ability as a teacher in previous professorial positions.

A PATIENT'S DESCRIPTION of Christian science: "I simply sat in a chair in front of the scientist, the latter with closed eyes, and there we sat. It was simply another case of that story you've heard of the man asking 'how do you feel,' 'I feel foolish, how do you feel.' The treatment was simply an application of will power. As a matter of fact 'Christian science' is a misnomer. It is simply the power of the mind over the body, and through that force comes any benefits."

DR. A. N. BESSESEN, 250 Temple Court, has probably the largest Crook's tube in the city, which he uses in connection with his powerful static machine. Many of the local physicians are taking advantage of the combination to make x-ray examinations, on account of the central location and superior facilities. The fee attached for this work is so moderate that most practitioners of the city find it better to take their patients there than to own the apparatus.

MR. C. A. HOFFMAN, the Minneapolis optician, attended the optical convention in Chicago last month, in company with ten others in the same line of business. Mr. Hoffman also visited the Pan-American exposition and the factories in his line further east.

WOMEN ADMITTED TO RUSH MEDICAL COLLEGE. Beginning Oct. 1, women will have as good right to enter the freshman class of Rush Medical college as men. This innovation has been brought about by a recent action of the trustees and faculty of the college, which decided to admit women, for the first two years' work. Heretofore Rush has closed all its clases to women, despite the many protests and petitions which have come from women anxious for the privileges afforded by the college.

This action, it is said, has been taken in view of the fact that the first two years of the medical work will be done hereafter at the University of Chicago, and the University insists that equal freedom be given to women and men. That women will be permitted to enter the last two years of the college work and receive a degree is said to be the next step which will be taken in the near future, or as soon as the women who now enter are ready for the two last years.

THE NEW ORLEANS POLYCLINIC is one of the most progressive institutions of the country, and many northern physicians take great pleasure in making their winter outing in and around the great city of New Orleans, and, at the same time, posting themselves upon modern progress in medicine and surgery at the above institution. The laboratory is well equipped for work in all the specialties.

MINNESOTA DENTISTS. The eighteenth annual meeting of the Minnesota State Dental Association closed at Duluth on the 2d of last month after a successful and interesting session of three days.

St. Paul was selected as next year's place of meeting.

The association selected the names of C. Robinson, Wabasha; James M. Wells, Owatonna, and Dr. Knight, of Minneapolis, to be presented to the governor, who will select two to serve on the state dental examining board to succeed C. H. Robinson of Wabasha, and C. H. Goodrich of St. Paul.

The following officers were elected: Alfred Owre, Minneapolis, president; R. H. Pierce, Duluth, vice president; G. S. Todd, Lake City, secretary; H. M. Reid, Minneapolis, treasurer; Jabes M. Wells, St. Paul, master of clinics; A. R. Holden, Duluth, chairman of executive committee.

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HAS RESIGNED HIS CHAIR. Dr. Thomas E. Weaks, of the State University dental department, has tendered his resignation to the board of regents, and will not be connected with the institution next year. Dr. Weaks has been a member of the dental department faculty for many years, and to his energy is due much of its efficiency.

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U. S. CONSUL JAMES H. WORMAN, of Munich, Bavaria, who is on a special mission back to the country on behalf of the governments of Germany and the United States to squelch the "fake" dental colleges and diploma mills now flourishing in America, was in Chicago last month, prepared to make charges of a sensational nature, involving officers of the Illinois State Board of Dental Examiners and several dental colleges now operating in Chicago.

Dr. Worman said that he had absolute proof of the issuance of illegal diplomas and licenses by the Illinois State Board of Dental Examiners, and that in a few days he would be ready to make disclosures that would startle the dental fraternity of Illinois and shake the foundations of many of Chicago's institutions of dentistry.

The names of the principal offenders Dr. Worman refused to disclose, but he said they were men in high standing in Chicago, some of them being members of the present Board of Dental Examiners. Dr. Worman says he made the discovery of their existence while in Germany, and at the same time he discovered that Germany was being flooded with circulars issued by institutions offering diplomas for sale.

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WISCONSIN DRUGGISTS. The Wisconsin Pharmaceutical Association closed its twenty-first annual convention at La Crosse on the 15th ult., the following officers being elected: president, F. B. Heimstreet, Janesville; vice president, W. H. Barr, Milwaukee; 2nd vice president, W. H. Farnsworth Beloit; secretary, Henry Rollman, Chilton; treasurer, W. B. Clark, Milton Milwaukee was chosen for the next meeting place of the convention after a spirited contest with Waupaca.

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MONTANA DRUGGISTS. The tenth annual meeting of the State Pharmaceutical Association, in session at Butte, adjourned after electing the following officers: Sidney Coffee, Missoula, president; H. M. Parchen, Helena, A. E West, Butte, K. F. W. Harrison, Anaconda, vice presidents; John M. Dowell Centerville, secretary; Fred Wothner Great Falls, treasurer. Proposed legislation for the benefit of the trade was discussd and committees appointed to draft laws for the next legislature.

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AN ALASKAN PROPHESY. Dr Caleb Whitehead, assayer of the mint bureau, when about to start on his annual trip to the Alaskan gold fields, from Tacoma, on the 12th of April, said:

"I wish to make a prediction and have it recorded for future reference. In ten years Alaska will be producing one-half the world's supply of copper, and Tacoma and Seattle will be the cities through which the rest of the United States will transact all its business with that great mining region."

Perhaps it was the inspiration of the above that created the recent scramble for supremacy in the ownership of the Northern Pacific railroad.

# Book Notices.

SYPHILIS; ITS DIAGNOSIS AND TREATMENT, by William S. Gottheil, M.D., Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist to the Lebanon and Beth-Israel Hospitals, the West-Side German Dispensary, etc. Profusely illustrated. Pages 216. Price $1.00 net. G. P. Engelhard & Company, Chicago, 1901.

The little work before us, which is devoted to a disease which plays such an important rôle in the social affairs of the world, is intended for the general practitioner who does not in any sense make a special study of venereal diseases.

The book contains a concise resumé of the latest conclusions regarding the natural history of the disease of syphilis and the best methods of combatting its manifestations.

There are numerous new illustrations finely executed.

OPERATIVE SURGERY. By Joseph D. Bryant, M.D., Professor of the Principles and Practice of Surgery, Operative and Clinical Surgery, University and Bellevue Hospital Medical College, etc. Vol. II. Operations on Mouth, Nose, and Œsophagus, the Viscera connected with the Peritoneum, the Thorax and Neck, Scrotum and Penis, and Miscellaneous Operations. Contains 827 illustrations, 40 of which are colored. New York City: D. Appleton and Company, 1901. Price, cloth, $5.00; sheep $6.00; morocco $7.00; students' rate morocco $5.00.

The second volume of Bryant's Operative Surgery maintains the high standard of the preceding part of the work. The opening chapter (XIII) deals with operations on the mouth, pharynx, nose and æsophagus and the ground is covered exhaustively. Chapter XIV is the most complete and clear description of operations on the viscera connected with the peritoneum with which we are acquainted. In Chapter XV the operative procedures on the anus and rectum are discussed. Chapter XVI deals with operations on the thorax and neck. The operations on the urinary bladder are well covered in Chapter XVI, and the closing chapter treats of operations on the scrotum and penis and miscellaneous operations. The descriptions are clear and eminently practical, and the work is admirably illustrated.

THE DISEASES OF THE RESPIRATORY ORGANS, ACUTE AND CHRONIC; by William F. Waugh, A.M., M.D., Professor of Practice and Clinical Medicine, Illinois Medical College, etc. Pages 221. Price $1.00 net. G. P. Engelhard & Company, Chicago, 1901.

The author of this work claims not to have drawn freely upon but one text-book, in the compilation, and that one is Anders' text-book on practice, but, aside from his own practice and clinical experience, has adapted the information gleaned from recent journal articles, many of which escape most compilers, and while he does not credit these latter, he has used them in such a happy combination as to produce a book that is exceedingly valuable along the lines of which the book treats.

Dr. Waugh advocates a method of treatment that is based upon the author's conception of the rôle played in acute inflammation by the vaso-motor nerves, and his belief that the future of scientific therapeutics lies in the study of such pathologic states, and the influence of drugs upon them, rather than in the consideration of these maladies as pathological entities.

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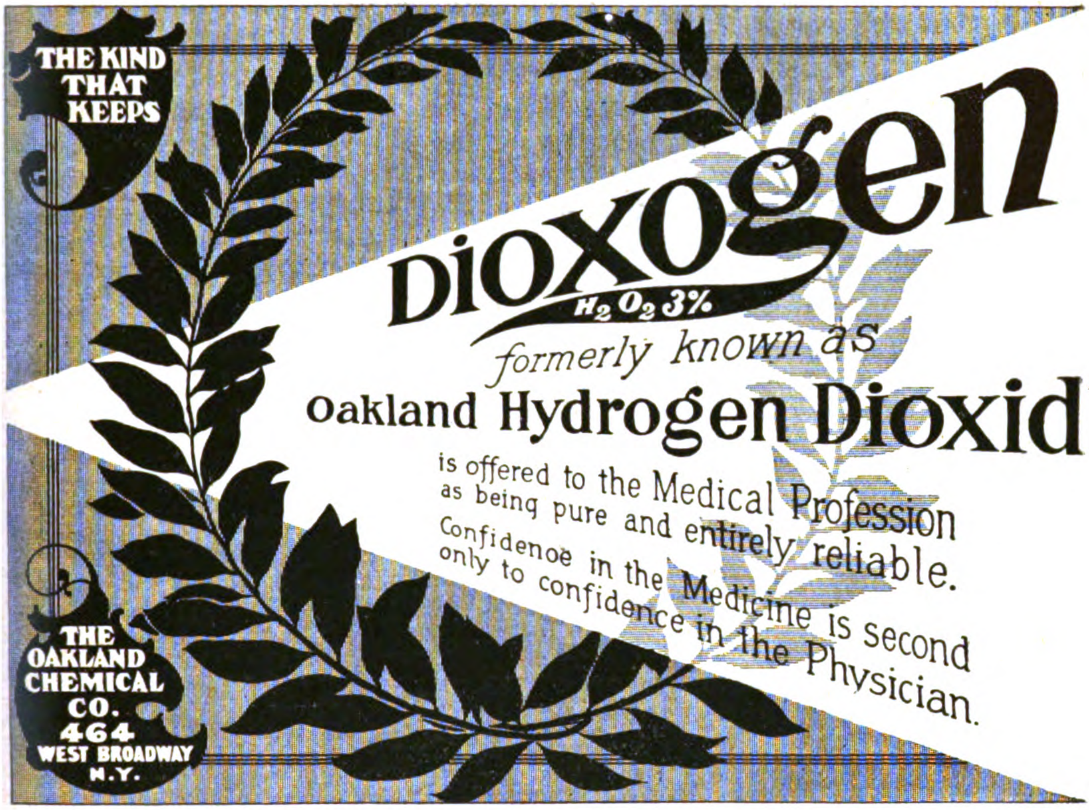
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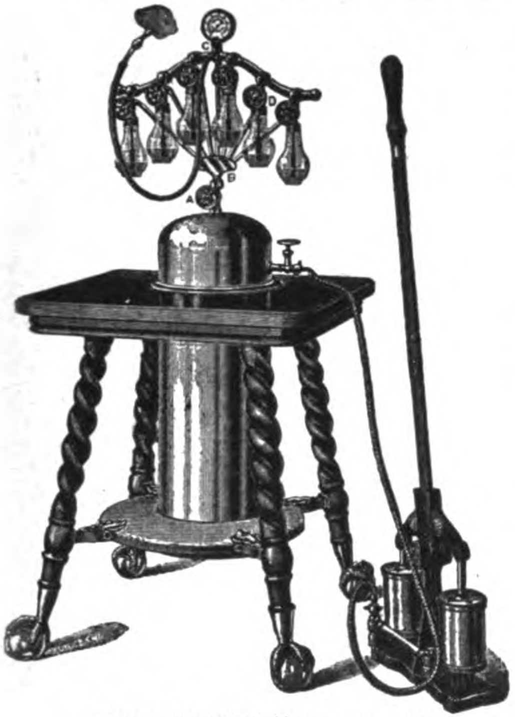

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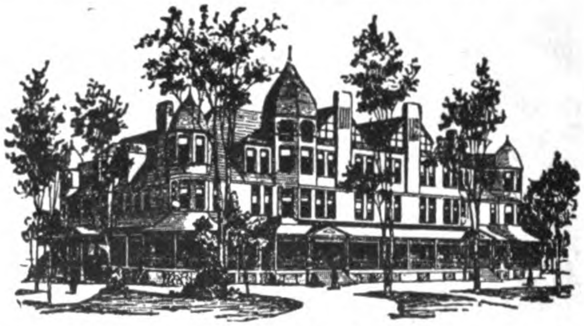

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Vol. III MINNEAPOLIS, MINN., OCTOBER, 1901 No. 10

REQUIESCAT IN PACE. It is now solemnly recorded in the history of events of the month of September, 1901, that a noble son of these United States has passed the boundaries of this life. Not only was he a scion of liberty, but he was the noblest of them all, in that he suffered the pangs of martydom at the hands of a representative of the enemies of organized society, that the nation might be purged from the horrible doctrines promulgated by a sect which will stoop to the most cruel crimes to tear down the existing forms of govment, and will not offer any substitute to take their place. That the devilish ideas of the anarchist have been allowed too long to flourish, not only in America, but in Continental Europe, is but too self-evident, but the death of President William McKinley, our beloved idol, has but freshened, with great force, the knowledge that anarchy is rampant throughout the civilized world, and that its advocates but await an opportunity to plunge the dagger or speed the leaden bullet into the vitals of any representative of a righteous government. Words are inadequate to depict the horror of such acts. But President McKinley is dead, for he breathed his last in the early morning of Saturday, September 14, 1901. May he rest in peace.

DEATH OF PRESIDENT McKINLEY. Surgeons may assume different theories as to the causes of the death of the President aside from the primary cause, the bullet wound. We now have the report of the autopsy and the sworn statements in court of the physicians and surgeons in attendance upon the patient. Although for six days following the fatal shot the symptoms appeared favorable for recovery, the autopsy showed that very little attempt at repair, or healing of the wounds, had been made by nature, and the track of the bullet through the stomach, and, so far as traced, was grangrenous, thus accounting for the sudden collapse on the seventh day.

It was accounted fortunate for the President at the time that the surrounding circumstances were so favorable, that almost immediately he was in the care of skillful and experienced surgeons, and in a well prepared hospital for emergency cases. All competent surgeons will agree that the case was properly conducted, and that nothing now known to science was omitted in the operation, or treatment following, that could contribute to the recovery. What then were the causes of death? This question is probably as well and satisfactorily answered as possible in the testimony of Dr. Mann before the court. Death was in his opinion due to several causes: "The entrance of germs into the parts, the low state of vitality of the patient and the action of the pancreatic juice which undoubtedly contributed to it."

In the above ennumeration of causes the low state of vitality would seem to most completely account for the lack of any healing process. Although the President was comparatively a young man, only 58, his life and duties must be considered when computing his chances to survive a serious gunshot wound and a severe surgical operation; his army life, a studious and laborious professional occupation, accompanied with sedentary habits, and for a considerable period his work in congress as the conspicuous leader of his party, and the author of bills requiring immense thought and untiring energy to accomplish his plans, and finally, for the last four and one-half years his duties as president, with an exciting and formidable war in addition to other and vast interests and questions to be met and decided. These are facts and circumstances that must be kept in mind when we esimate the vitality of the patient. Younger men have survived greater injuries, we know, on battle fields and recovered under great disadvantages for care and treatment, and a vigorous constitution and unimpaired vitality saved their lives.

ANARCHY AND LYNCH LAW. The world has received an object lesson in the dignity, calmness and promtitude of American criminal justice. Czolgosz perpetrated his dastardly crime on Sept. 6th, he was immediately captured, placed under arrest and protected from the righteous indignition of an excited multitude. On Sept. 23rd his trial in the Supreme Court of Erie County began, an intelligent jury was secured on the first day, and the trial at once proceeded. On the 24th the case went to the jury, and that body, after a seclusion of only thirty-nine minutes, brought in a verdict of murder in the first degree.

Such a murderous attack, without personal cause or motive, might well raise the question of the sanity of the criminal, and he was, therefore, given the benefit of an examination by distinguished medical experts in insanity who pronounced him sane.

Eminent lawyers were appointed by the court to defend the prisoner and these gentlemen from a sense of duty gave the accused the benefit of their able talent; but there was a noteworthy absence of all the vexatious, tedious and undignified proceedings which too often characterize criminal proceedings in this country. Jurymen were not rejected because they had read the newspapers or had formed an opinion as to the guilt of the defendant.

Judge Lewis in addressing the jury very properly said:

"It is charged here that our client is an anarchist—a man who does not believe in any law or in any form of government. And there are, so we are told, other individuals who entertain that opinion. We all feel that such doctrines are dangerous, are criminal; are doctrines that will subvert our government in time if they are allowed to prevail.

"Gentlemen of the jury, while I believe

firmly in that, I do not believe it creates a danger to this country equal to the belief becoming so common that men who are charged with crime shall not be permitted to go through the form of a trial in a court of justice, but that lynch law shall take the place of the calm and dignified administration of the law by our courts of justice.

"When that doctrine becomes sufficiently prevalent in this country, if it ever does, our institutions will be set aside and overthrown and, if we are not misinformed as to the state of mind of some people in some parts of the country, the time is fast approaching when men charged with crime will not be permitted to come into court and submit to a calm and dignified trial, but will be strung up to a tree on the bare suspicion that some one may hold the belief that they have committed some crime."

While we agree with all the learned counsel says in condemnation of lynch law we are also convinced that a few trials in which the wheels of justice move with as little friction as was the case in the Czolgosz trial would do more to suppress lynching than a century of controversy. The main excuse for lynching is the slowness, the uncertainty of the course of the law and the inevitable resort on the part of the defending counsel to all the technicalities and undignified methods which may be resorted to in order that the ends of justice may be defeated. When weeks are consumed in securing a jury, when it is sought to fill the jury box with men so illiterate that they never read a newspaper or so sordid that they never form an opinion, we need not wonder that an outraged people, losing patience with the uncertainties of the course of justice, should once in a while take the law into their own hands and mete out punishment swift and sure to an offender caught red handed in the act. A few straight, prompt business-like trials like the one just completed at Buffalo would convince the people that the law could be trusted to take its course and would in a large measure put an end to the barbarous custom of lynching.

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## INVITATION AND PERMISSION:

"All foreigners dissatisfied with this country have leave to withdraw."
UNCLE SAM.

If the tragic death of President McKinley results in the banishment or suppression of all anarchists and their railing and plotting against the lives of officers of this government and the laws of the country, and abolishes in the future the promiscuous handshaking of public men, he will not have died in vain.

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**SAFETY IN ANESTHESIA.** From the time when anesthetics were first employed in surgery until the present much attention has been given to the prevention of accidents during their administration. Too much stress has probably been laid upon the choice of the drug—some claiming for ether that it may be used with perfect safety, while chloroform was decried by them as beset by many dangers. We believe the danger lies less in the drug itself than in its mode of administration. Apart from the drug employed and the mode of administration, is the condition of the patient, and to this point we wish to draw special attention. The time has gone by when an examination of the heart, lungs and kidneys is deemed a sufficient test of a patient's fitness to undergo anesthesia with safety. The effect of anesthetics on the blood is more important than has generally been recognized, and, fortunately, we have a ready and convenient guide, viz: the percentage of hemoglobin which the blood contains.

Taking 80 and upwards as the normal percentage of hemoglobin in health it is conceded that a person whose blood contained only 50 per cent of hemoglobin is a dangerous subject for anesthesia, while 25 per cent would render the administration almost certainly fatal.

The early investigations relating to the effects of anesthesia upon the blood were crude and unsatisfactory. Sansom in 1861 added anesthetic drugs to blood in test tubes. He came to the conclusion that the bloood corpuscles were destroyed and the coloring matter liberated.

Bierfreund, a pupil of Mikulicz, in 1890, found that the administration of chloroform reduced the hemoglobin from 5 to 10 per cent.

Hamilton Fish (Annals of Surgery, July, 1899) contributed a valuable article entitled "The importance of Blood Examinations in Reference to General Anesthetization and Operative Proceedures." He is convinced that ether reduces hemoglobin and has demonstrated to his own satisfaction that safe anesthesia is dependent upon,

(1) The percentage of hemoglobin in the blood before, during and after anesthetization, (2) A normal or increased number of the polyneuclear neutrop iles. Anesthetic vapors may be inhaled with impunity just so long as the hemoglobin percentage remains higher than the physiological requirements of the system and the phagocytic or reactionary powers of the polyneuclear neutrophiles are not overcome by the anesthetic compound. Hence, a so-called physiological dose of an anesthetic vapor for an individual whose blood shows a hemoglobin percentage of 80, would be a pathological dose in the same individual showing a hemoglobin percentage of 50 per cent or less. He regards a mild leucocytosis of the polyneuclear neutrophiles before, during and after anesthesia and operation desirable, as they combat anesthetic shock, and facilitate wound regeneration. He makes the very practical suggestion that where the haemoglobin percentage was originally high but became reduced by long continued anesthetization, it can be regenerated to some extent by withdrawing the anesthetic for a short time while the patient inhales pure air.

Drs. John Chalmers, De Costa and Frederick J. Kalteyer have recently conducted a number of experiments in the Jefferson Medical Hospital (Annals of Surgery, Sept., 1901) which are of special interest. The method of examining the blood was as follows: "The patients were in the recumbent posture. The blood was taken from the tip of the finger. In no case was the hand edematous. The skin was cleaned with water or a little soap and water; next, with alcohol, and was then dried. The part was warmed by a gentle friction; care was taken not to excite hyperemia by a vigorous rubbing. The puncture was effected with a clean needle having a cutting surface, and was made deep enough to insure a free flow of blood without squeezing the part near the wound. The first drop was always wiped away. The number of erythrocytes and leucocytes was estimated with the Thoma-Zeiss hemocytometer. In determining the number of red cells, a two per cent salt solution was used as a diluent, in the proportion of one part of blood to 200 parts of the solution. A one-per-cent acetic acid solution was used as the diluting fluid, in the proportion of one to twenty, in estimating the number of leucocytes. In ascertaining the number of erythrocytes, the corpuscles over eighty squares were counted: while the corpuscles over 400 squares were enumerated in determining the number of leucocytes. The hemoglobin estimations were made with Oliver's hemoglobinometer, except in four cases in which the Fleischl instrument was employed."

Fifty cases were thus examined and tabulated. The average number of red corpuscles before anesthesia was 4,977,-440; after anesthesia the average was 5,126,800, a gain of 149,360. The average hemoglobin before anesthesia was 89 per cent, after anesthesia 86 per cent an average loss of 3 per cent.

Their conclusions are thus summarized:

"(1) The number of red corpuscles is influenced by many factors associated with and accompanying the anesthetic state. The character of this change is, as a rule, a polycythemia; rarely, an oligocythemia. These factors associated with and accompying the anesthetic state may be grouped into three classes. In each class, when analyzed separately, is found a cause capable of producing an increase in the number of colored corpuscles.

"(2) The nature of this polycythemia seems best explained by a lessening of the watery elements of the plasma, thereby reducing the total volume of the liquor sanguinis, and consequently causing concentration of the blood. It seems reasonable to infer that the polycythemia is not influenced by excessive proliferative changes, which probably occur in the hematopoietic tissues. The increased blood production is an effort of nature to rapidly restore the destroyed cells.

"(3) The three important factors incident to the polycythemia are: (a) The period of preparatory operative treatment; (b) the anesthetic state; and (c) the postoperative stage.

"(4) The blood inspissation is, as a rule, most pronounced immediately after the termination of the anesthetic stage. (See group C). In some instances the anhydremia may be increased by such succeeding factor, or one of these factors may exceed the other; for example, the preparatory measures may bring about such a high grade of concentration that during the anesthesia the polycythemia may be stationary, or in a few hours may lessen somewhat. This variation existing between the plasma and the corpuscles, although temporary (for the economy adjusts the balance of the output and the intake of the watery principles of the blood with wonderful rapidity), should be regarded as too pronounced to be within the physiological limits. The relative increase in the number of erythrocytes is generally still present some time after the operation. (See groupD). But not inferquently the adjustment of the watery and solid elements manifests itself before this time, and an oligocythemia may be present.

"(5) The hemoglobin is always reduced absolutely; in some instances there is an apparent increase, but this rise in the percentage of hemoglobin is never parallel with the rise in the number of red blood-cells. The individual corpuscular hemoglobin value is therefore reduced. This reduction in the color value of the chromocytes is most striking when the color index, ascertained some time before the operation, is compared with the blood decimal, determined some time after the operation. We must conclude that etherization produces increased hemolysis; and in nature's effort to rapidly replace the destroyed corpuscles the regenerated cells are imperfectly supplied with hemoglobin.

"(6) The duration of the anesthetic state and the amount of ether may influence the blood changes; but the extent of the disturbances could not be determined on account of the many modifying factors.

"(7) The amount of blood loss, as encountered in this series of cases, does not seem to affect the blood.

"(8) Whenever possible, one or more blood examinations should be made before giving a general anesthetic; and the examinations should be made before preparatory treatment has been instituted. On account of the hemolysis, which is shown by the fall in corpuslar hemoglobin after operation, a very low percentage of hemoglobin must be regarded as a contraindication to the administration of a general anesthetic. The amount which should be regarded as a positive contraindication is uncertain. We think, with Hamilton Fish, that below 50 per cent is a dangerous level. In malignant disease, and in cases where surgery might prolong life briefly but cannot cure, operation should not be performed under a general anesthetic if hemoglobin is below 50 per cent. We have operated in two cases in which the hemoglobin was 40 per cent: in each instance a vital emergency existed, and in each case death upon the table was narrowly averted. Mikulicz sets 30 per cent as the lowest level at which operation is to be attempted. We must not give a general anesthetic, except under the stress of absolute necessity, if the hemoglobin is below 40 per cent. It is true that cases are occasionally anesthetized with success when there is less than 40 per cent; we know one case with 30 per cent, and another with 24 per cent; but a few exceptions do not disprove the rule. If there is a low percentage of hemoglobin local anesthesia should be employed whenever it is possible.

"Whenever the percentage of hemoglobin is low, if an operation is determined upon, the ordinary preparatory measures should be modified in every way, in order to avoid creating an undue drain upon the blood. If a general anesthetic is given, its administration should be intrusted to an evperienced man; as little as possible should be given; in many instances oxygen should be combined with it; the operation should be performed rapidly; proper measures should be taken to bring about reaction after its completion, and oxygen should be inhaled to remove the ether quickly from the lungs and blood."

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OKLAHOMA MEDICAL NEWS. We are in receipt of Vol. 1, No. 3, of the above journal, which has the earmarks of a live and progressive medical monthly. J. R. Phelan, M. D., is the editor, and C. A. Phelan, business manager. Oklahoma is coming to the front as a wide-awake section of the country, and has the unique distinction of being more quickly developed with an intelligent class of citizens than any other part of the United States. There is no question but that the Oklahoma Medical News will sustain the banner of the medical profession in its field in a manner satisfactory to all concerned. No. 3 contains seven original articles.

# A Modified Gastrostomy Operation.

By F. T. Meriwether, M. D., Asheville, N. C.

I report the following case of gastrostomy done by an original method upon a patient upon whom at the same time a gastro-enterostomy was done, realizing that one case does not confirm the value of an operation, but trusting that further trials may prove its merit.

Case—Mrs. S. age 58 years, VIII Para. Russian Jewess Family history nil. Health until a year ago good. Weighed about 185 or 190 lbs. Has had for the past year occasional gastric pain, not much loss of flesh until about four months ago, since which time she has lost forty pounds. She vomited at times after meals, the vomited matter being principally mucus. No hematemesis, constipated, some difficulty in swallowing her food. For some time prior to the operation she could retain nothing, and had great difficulty in swallowing anything. A small tumor could be felt at the pyloric end of the stomach, with possiby some enlargement of the cardiac end. Operation March 15th, 1900, Drs. Glenn, Watson, Baird and Brownson being present. An incision, four inches long over inner edge of the left rectus joined by a transverse one from its upper end extending to the left for three inches, gave a good view of the stomach. The stomach was somewhat atrophied, and thickened, a carcinomatous mass surrounding the pylorus two inches long and one inch in diameter, and a mass three inches long by one and a half inches in diameter at the cardiac end. A posterior or von Hacker's gastro-enterostomy with a Murphy button was done, without reinforcing sutures, and a Gastrostomy as follows:

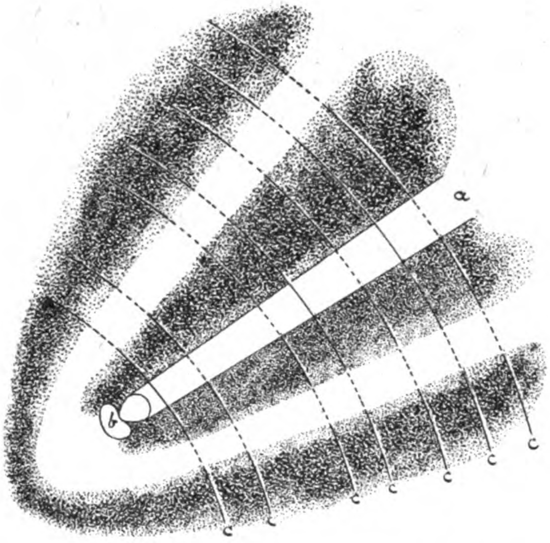

Fig. 1. Gastrostomy. a. tube. b. opening in Stomach. c. sutures.

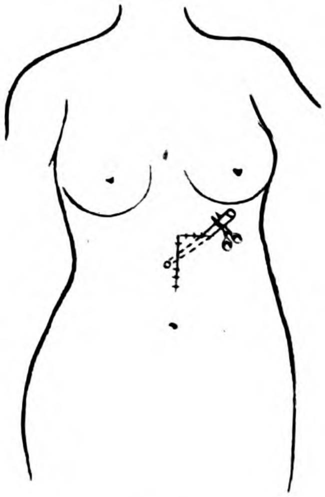

Fig. 2. Gastrostomy.

A rubber tube was inserted in about the middle of the anterior surface of the stomach emerging at the end of the transverse incision through the skin. Two catgut sutures were applied below the opening in the stomach then six sutures, each one fourth of an inch further above and below the tube than the preceding one, each suture being one-half of an inch apart, and passing through the peritoneum, then through one-fourth of an inch of the two external coats of the stomach, then over the tube, then through the stomach as before, and then through the peritoneum. A last suture we passed through the two coats of the stomach and under the tube making something like a purse string suture. These sutures were all of catgut. When tied they brought peritoneum to peritoneum and formed a fluid tight funnel shaped canal leading from the skin to the opening in the stomach. The peritoneum was stitched around the portion of the tube where it emerged and the skin and muscle closed by through and through sutures of silk worm gut. One fine catgut suture was placed through the tube where it entered the stomach to anchor it.

The patient was fed before leaving the table, after the stomach had been washed out. She left the table in good condition, gradually gained in weight, and in July seemed to be in good condition. During June she removed the tube and refused to allow it to be replaced. Owing to her ignorance we had a hard time to use the tube, at one time, it remaining out for thirty-six hours. And yet, I had no difficulty in re-introducing it. I will not go farther into the details of the case, except to say that her gain in weight was remarkable. After August, the old difficulty in swallowing returned, and she gradually sank, living, however, until November.

The button was removed from the rectum upon the eighty-first day. This operation allows the removal of the tube for even a considerable length of time between the feedings, with but little difficulty in replacing it. The funnel-shaped canal guides the tube directly into the stomach opening, the only place where a narrowing can take place being at the cutaneous end. When the tube is out the stomach presses against the abdominal wall forming an air tight valve.

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# Hydraulic Pressure—A Means Used to Open the Common Gall Duct, which Remained Closed, or Reclosed After the Removal of Impacted Stones.

By L. P. McCalla, M. D., Boise, Idaho.

I can best describe this process, as used by me, to open the common gall duct, by giving a clinical report of the case in which it was used, as follows:

April 26th, 1900. Mrs. M. A. P. Age 32. White. Married. House-wife. Par. 3. Mis. O. Nothing unusual in menstrual history or confinements. General appearance bad; very deeply jaundiced. Skin and conjunctivae a brownish yellow color. Muscles soft and flabby. Appetite poor; great distress after eating, stomach and bowels bloated or distended with gas. Obstinate constipation, stools light grey color of a pasty consistence.

Gave history of severe colics for the past five years, growing more frequent and severe from the beginning. (More or less jaundice with and following each attack.) The last two years confined to bed most of the time, suffering great pain. These attacks had been diagnosed and treated as neuralgia of the stomach.

Physical examination revealed nothing further than was obtained by objective examination except a slight increase in area of liver flatness and sensitiveness to slight pressure over the region of the liver.

Diagnosis: Obstructed bile ducts by impacted gall stones. April 27th. I operated on her at St. Alphonsus hospital. The gall bladder was so much shrunken and contracted that it could not be brought from under border of liver, and contained a number of small calculi. Common duct impacted with a number of calculi. As it is impossible to suture the gall bladder to the abdominal wall, and its being so shrunken, I decided to remove it.

In the attempt to separate the bladder from the liver its walls gave way, as one of the stones had completely perforated its walls and was imbedded in the liver, I tore it wide open on one side. Its contents, a mucilaginous, viscid yellowish mucous, was poured into the peritoneal cavity, but as there was very little of it, it was quickly removed by sponges. It was impossible to separate the bladder from the liver, as it was firmly adherent, without doing much damage to the liver, or leaving bits of the bladder walls, so I evacuated the small calculi, about twelve in number, and as the common duct was dilated succeeded in emptying it of the impacted stones, eight or nine in number, varying in size from a hazel nut to a partridge egg, through the gall bladder, by squeezing them back into the gall bladder, and passing forceps into the duct grasping and removing or crushing the stones.

Some of these stones were imbedded in the walls of the duct, which were thickened, and the removal of the stones from their beds with more or less traumatism necessarily inflicted in crushing and removing the stones, left the lining membrane of the common duct lacerated and contused. This, in addition to its already inflamed, ulcerated condition, made it very doubtful as to the duct remaining open. I placed a rubber drainage tube in the gall bladder and sewed the torn bladder around it and to the liver with cat gut sutures, and closed the abdominal incision without packing any gauze around the drainage tube, as I felt sure there would be no leakage of bile.

This was a very trying operation all the way through, as the bladder and ducts were so shrunken, but this last part was particularly troublesome, as the bladder walls were so friable and all of the work had to be done in a very deep obscure place, underneath the border of the liver. The patient improved rapidly after the operation. The bile flowed freely through the tube. Her skin and conjunctivae cleared up very fast, and the great relief from suffering and general improvement were very gratifying to the patient.

I had no doubt about the common duct having been opened and some bile passed through it for ten days following the operation, as the improved digestion and color of the stools indicated; but after that time, until the middle of the fourth week after operation, I am convinced that all of the bile secreted escaped through the drainage tube. This opinion was confirmed by the intense pain and pressure symptoms felt in the epigastric region in a few hours after the accidental escape of the drainage tube from its moorings during the night at this time.

I succeeded in replacing a slightly smaller rubber tube ,and the pain was relieved after a half hour free flow of bile. Her condition at this time was one of hepatic colic. The skin was cold, the features pinched and the pulse weak, with severe pain of a full, bursting, boring character. Now the question arose, what can be done? It was very unpromising for another operation. The shrunken, diseased and adherent gall bladder could not be united to the intestine, and the probability of opening and keeping open of the common duct was not by any means great. The permanent bile fistula, a terrible curse to bear.

Believing the drainage tube was surely isolated from the peritoneal cavity, and that there was no particular danger of rupturing the gall bladder or ducts with a reasonable water pressure, I determined to try hot water, 130 F., raised high enough to exert a rather strong pressure, with the hope of reopening the cimmon duct. I used hot water in order to dissolve any stone that might have escaped my attention at the time of operation, or had formed since the operation, that might obstruct the common duct. I raised the water bag about eight feet above the patient, and as the drainage tube fitted rather tight, I could make pretty strong distension of the gall bladder, which would be kept up from four to six seconds, and then allow the water to escape, thus alternating the pressure and escape every six to eight seconds for about fifteen minutes. When the pressure was on the patient complained of the same pain and full feeling as before the operation and at the time the drainage tube escaped.

On entering her room the following morning both the patient and nurse remarked that the dressings were very much less soiled than at any time since the operation by the escaping bile. On the third day, I raised the water bag to ten feet and kept up the procedure as before for twenty minutes. With a still greater reduction in amount of bile escaped on the following morning. On the fifth day, I repeated the process, but raised the water bag to twelve feet. This pressure gave her agonizing pain, and could only be maintained for a very short time, say three to four seconds. After this there was very slight escape of bile, which rapidly lessened, and I removed the drainage tube at the end of a week. The opening closed entirely on second day..

The stools were now natural in color and consistence. She left the hospital in the best of spirits and in good health in less than a week from the removal of the drainage tube. September 29th, I had a letter from her, in which she stated she was enjoying perfect health and weighed 168 pounds, a gain of 64 pounds since the operation. The only points of interest and originality I claim in this case, were the sewing of the torn gall bladder to the liver, fastening the drainage tube tight, and the hydraulic pressure method of opening the common bile duct, which had closed after the operation.—Med. Sentinel.

# Use of Hydrotherapy in Neurasthenia and Other Nervous Affections.*

By Wharton Sinkles, M. D., Physician to the Infirmary for Nervous Diseases, Philadelphia.

Hydrotherapy is a means which has been undeservedly neglected in the treatment of some of the functional disorders of the nervous system. In the treatment of neurathenia it is one of the most useful adjurants to the usual routine and remedies, and in mild forms of this affection it is often the means of restoring the patient to health independent of any other plan of treatment. In my experience hydrotherapy is of more utility in neurasthenic men than in women. It acts as a general stimulent to the circulation, aids the digestion, and gives the patient a sense of well-being and comfort that nothing else does. Like all other remedies, in order to get the best results from its use one must be provided with suitable appliances for its proper application, and one should have a certain amount of knowledge as to its physiological effects. No doubt good results are often obtained from baths and douches given with the conveniences of the ordinary bath-room, but in order to get the most favorable effects one should have apparatus by which the baths and douches can be used with scientific accuracy. For example, one should be able to gauge the pressure of the douche in pounds and to give the exact number of degrees of heat and cold.

In using hydrotherapy for neurasthenics the method usually employed is as follows: The patient is placed in the hot-air cabinet until perspiration begins. He is then given the circular or so-called "needle bath" for one minute, beginning with a temperature of 95° and gradually reduced to 85°, with a pressure of twenty pounds. The Scotch douche is then applied to the spine. This consists in the application of an alternate douche of hot and cold water of a temperature of 105° and 80°, with a pressure of about twenty pounds. The treatment at first should last for only twenty-five or thirty seconds. After a few days the pressure is increased to twenty-five or thirty pounds, and the extremes of temperature used are much greater, alternating, for example, between 110° and 70°. After about two weeks' treatment, in addition to the circular and Scotch douche the fan douche may be used to the body, abdomen, and extremities. The patient's condition should be carefully watched, and if the reaction is not good it is neccessary to go slowly in reducing the temperature and increasing the pressure of the water. It is my custom to have the pulse, temperature, and respiration of the patient taken before and after the bath, and to also have him weighed before and after. After the bath brisk friction is applied with warm, dry towels, and a few minutes' general surface massage is given. The patient may then be sent out for a walk. Taking exercise after the bath is a point on which Dr. Garuch insists, and I find that it is a good plan not to allow the patient to lie down after the treatment, but to take judicious exercise, which promotes reaction.

Hydrotherapy does not agree with all neurasthenics, and one should watch its effects in each case carefully. In the excitable, nervous, and apprehensive neurasthenic the condition is often aggravated by the first few applications of hydrotherapy, just as it often is by massage or any other procedure. If the different forms of douches produce an unfavorable result, it is then best to begin with the wet pack and sponging the spine with hot and cold water at home, or in the patient's own room, until his confidence is gained.

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*Read before the Philadelphia County Medical Society May 18, 1901.

The application of hydrotherapy is of great advantage in insomnia, and excellent results are obtained from its use. In some cases the use of a full hot or warm bath at bedtime will secure a good night's sleep. While taking the hot bath the patient's head should be surrounded with a cold, wet cloth, or an ice-bag should be applied. In most cases the wet pack is more efficient than the hot bath, and the use of friction to the surface after the pack is of great utility. In other cases the drip sheet does more good than either the hot bath or wet pack. In all of these methods the rationale of treatment is the same. First there occurs contraction of the capillaries of the surface and hyperemia of the brain and internal organs. This is followed by a reaction in which the skin circulation is increased and the surface becomes hyperemic, while the blood-vessels of the brain are depleted.

One of the most striking instances of the beneficial effects of hydrotherapy in insomnia was the case of a gentleman, aged thirty-five years. He had been actively engaged in business for several years, and as a result of the mental strain had become nervously exhausted. He had been abroad for two years and had consulted the leading authorities in nervous diseases there, and had been under the care of prominent neurologists in this country. He was sent to me with the idea that a course of rest treatment would be helpful, but finding after a short time no benefit from massage, electricity, and rest in bed, I sent the patient to Dr. Baruch for a course of hydrotherapy. The result of this treatment was most satisfactory. He was given systematic treatment daily. After a few weeks he was entirely relieved of insomnia, and his general health was restored to a normal condition. In the case of a young woman of twenty-seven, who was neurasthenic and suffered from headaches and insomnia, with a considerable amount of mental depression, a course of hydrotherapy enabled the patient to sleep normally after two weeks, and the whole general condition improved greatly.

In many cases of melancholia great benefit is derived from the systematic use of the hot-air cabinet, followed by the Charcot or Scotch douche. I have had several patients in whom the most satisfactory results followed this plan of treatment. Nervous dyspepsia is another affection which is successfully treated by hydrotherapy. The use of the fan douche applied briskly to the abdomen and epigastrium aids the digestion and improves the tone of the intestines. In conjunction with the external use of water, daily stomach lavage is a useful adjunct.

In the treatment of peripheral neuritis the application of hot fomentations is of recognized value, not only in relieving pain but in improving the neuritis. After the acute stage is passed the use of the Scotch douche and the fan douche is of great value in improving the circulation and restoring the tone of the muscles.

Sciatica has been successfully treated by means of hydrotherapy. The application of the douche over the course of the nerve, using a very low temperature and a considerable amount of pressure in order to produce great hyperemia of the skin, is a beneficial method. Dr. Baruch's plan of exceedingly hot fomentations applied over the nerve has been signally successful in his hands.

There are many other nervous disorders which are greatly benefitted by different forms of hydrotherapy, but time does not permit me to mention all of them, and I have only in a cursory manner gone over a few of those neuroses which are most signally benefitted by hydriatic measures.—Therapeutic Gazette.

# A Few Practical Points on Ether Anesthesia.

By Thos. B. Eastman, A. B., M. D., Indianapolis, Ind.

The surgeon who perforce operates occasionally without the assistance of a trained anesthetist will appreciate the statement that the average medical man is not all that could be desired in this capacity. The only perfect anesthesia is that in which the patient does not move a voluntary muscle from the beginning to the end of the procedure, and yet how often is such an administration seen. One can no more give ether well without long experience, no matter how well he may know the theory, than can a juggler keep three balls in the air by reading a book of rules on the subject. Too often the beginner approaches his task with fear and trembling; and while recklessness is here to be condemned, nevertheless, the assistant who prolongs the initial anesthesia until his patient is exhausted from the struggles and excitement due to incompetent administration, until his patient has consumed eight or ten ounces of the drug and is thoroughly "ether-logged," is as dangerous as he who puts his patient under quickly.

In approaching the patient after having taken the usual precautions, it is well to explain to the patient that he will experience some very peculiar sensations, but to pay no attention to them; that there will come a time when he is apparently about to choke, but by swallowing, this sensation may be relieved. The nervous shock is enough without adding to the firm belief on the part of the patinet that he is choking to death. Do not tell the patient to take a long breath, as in the endeavor to do this his mind is made too active when it should be composed. Direct the patient to breathe naturally, taking neither too deep nor too shallow breaths.

As to the inhaler: It may be assumed that any volatile substance evaporates more rapidly when poured upon a dry surface and that ether is effective largely in proportion to the rapidity of its evaporation. Therefore, that inhaler is best which affords the largest dry surface. By using both sides of an Allis inhaler pouring the ether on the upper surface and inverting the inhaler at the next expiration after the drug is poured on, and so on in rotation, the best results are to be obtained.

Ether should never be used from any but a recently opened can. In order to get the best results it should be fresh and, as it were, "crisp." The room should be quiet and wherever possible the patient should be anesthetized in his room, thus avoiding the excitement incident to being carted off to an anesthetizing room next to the operating room, where the noises made in preparation can be heard. As intimated before that anesthesia which is produced with the greatest rapidity consistent with safety is the best. Any competent anesthetist can put a patient under the influence of ether in eight minutes with utmost safety.. Lower the inhaler gradually on the face, thus avoiding a shock to the mucous membrane which can not be overcome during the entire operation. The habit of "jabbing" the fingers into the eye to see if the reflexes are abolished is at once a most pernicious and an unnecessary habit. The character of the breathing, as the patient passes into complete relaxation, is such that one with even a modicum of experience may know that surgical anesthesia has been secured.

After the ether has been given a short while there comes a stage where the patient has apparently stopped breathing. The pulse is good, the color good, showing that both heart and lungs are active.

The patient is at this time semi-conscious and the writer has frequently seen the anesthetist begin to press upon the chest and do other things which are calculated to alarm the patient and throw him into condition of fear and excitation that he begins what he believes to be a struggle for life. Instead of removing the inhaler and putting the patient through a series of gymnastic exercises, the ether should be quietly crowded when all will be well.

If the few ideas here mentioned are carried out, many of the so-called objections to ether will be obviated and one in particular, vomiting, will rarely be observed.—Medical and Surgical Monitor.

# Bacteriological Report on Mississippi River Water.

By J. Frank Corbett, M. D., Minneapolis.

On September 17th Mr. Bogart of the Engineering Department of the City of Minneapolis, and Dr. Corbett of the Health Department, made a trip from a point above Camden Place down the Mississippi river to the apron and collected samples of the water for analysis along the course of the trip. This was ordered by Dr. P. M. Hall and Mr. McConnell of the water department, to determine the character of the water at various points and to decide whether good water could be obtained near enough the present West Side station to allow the present intake being extended. The trip was made in a bateau manned by two lumbermen. All samples were taken in deep water far enough below surface to prevent accidental contamination. The main channel in clear running water was selected as far as possible. The method of collecting samples was as follows:

To the end of an iron rod seven feet long was fitted an arrangement consisting of two sheet iron cylinders. One of these cylinders was of sufficient size so that a half gallon bottle could be slipped in and held in place by means of a little lever. The other contained a four ounce sterilized glass bottle. Either bottle had a wire attached to the stopper, which was also seven feet long. At the chosen point the apparatus was lowered to the end of the rod. The wires were pulled, thus removing the stopper and the bottle allowed to fill. When full they were drawn to the surface and labelled. After collection the water was taken immediately to the laboratory. Plates were made on geletin and incubated at room temperature. For this purpose .1 c. c. was used, with results as given in table. Duplicate incubations were also made into agar-agar which had been melted and carefully cooled to 40°C., and plates made from these. In determining sewage bacteria the following method was used:

To 50 c. c. of water was added 40 c. c. of broth and 1 c. c. of a 5 per cent carbolic acid solution. This was incubated in the oven at 38°C. for forty hours and then agar plates made from this. No attempt was made to differentiate species. Fermentation tubes were prepared containing sterile bouillon and glucose. 1 c. c. of water introduced into this produced sufficient gas to indicate presence of colon bacilli.

I believe these simple tests are sufficiently accurrate for ordinary purposes and much more practicable. For a complete qualitative analysis of any water is an enormous task. We did not attempt to demonstrate typhoid bacilli, but I think it may be taken for granted that when sewage contamination exists we have every reason to suppose we will find the typhoid.

Following is the official report:

Following is a detailed report of samples of water obtained at following points: North Side intake, above proposed intake on north East Side, Twentieth avenue north bridge, Plymouth avenue bridge, at a point below Bassett's creek, head of Nicollet Island, steel arch bridge and West Side intake. All samples were obtained six feet below surface. Plates were made on gelatin, on agar and on carbonized agar. On the gelatin media all bacteria developed, both the harmless water bacteria and pathogenic varieties. On agar, incubated at a temperature of 39 o. c., most of the water bacteria were killed but bacteria from intestinal dejecta and some other grew. When sown in carbolic agar only such bacteria as are found in intestinal tract or other parasites or pathogenic varieties developed. Such a growth indicates sewage contamination. The first column of figures in following table shows total number of bacteria, the second shows suspicious ones, and the third those that are absolutely dangerous. From these tables we see the water remains unchanged from the North Side station until it reaches the Plymouth avenue bridge.

## Report in Detail.

| | Gelatin. | Agar. | Carbonic acid. | Odor pl. | Remarks. |
|---|---|---|---|---|---|
| North side intake.... | 1280 | 215 | None. | Normal. | Large number no disease or suspicious bacteria found. |
| *Above new site.... | 1900 | 307 | Few. | Normal. | |
| Twentieth Ave. Bridge.. | 1560 | 272 | No test. | Normal. | |
| Plymouth bridge.... | 1860 | 220 | No test. | Normal. | |
| Below Bassett Creek.... | 1450 | 972 | No test. | Foecal. | |
| Head of Island.... | 1740 | 761 | Numerous. | Normal. | Sewage. |
| Steel arch bridge.... | 2400 | 816 | Numerous. | Foecal. | Sewage. |
| West side.... | 3420 | 1140 | Numerous. | Normal. | Sewage. |

*Increase in number of bacteria probably due to excavations going on at site of new station.

Immediately above site of proposed pumping station on North East Side is a probable source of contamination. At this point are a dwelling house and several sheds draining into the river. It is probably due to this that the report for water taken at this point is not as favorable as that at the North Side intake. Above Twentieth avenue north the shores are comparatively clean, and I believe do not materially contaminate the water. One sample of water was taken about 200 feet below what seemed the worst part of the shore without showing any increase of bacteria. Below this point there are many sources of pollution. The river seems to flow in an unbroken volume until it reaches the Plymouth avenue bridge. At this point a promontory juts out into the river a little below Bassett's creek and the current changes from the west side to the east side. This condition serves as a mixer of Bassett's creek into the main stream. Owing to the dam, to booms and other local conditions, I think the surface current varies in this locality at different times. This opinion is based on observations of floating material at different times.

# Medical Miscellany.

**THE MATTER OF REVOCATION OF THE LICENSE OF DR. EDWARD N. FLINT.** By request of the State Board of Medical Examiners, of the State of Minnesota, the following statement regarding the Flint revocation matter is published herewith. It will no doubt be read with considerable interest by members of the profession, as indicating the general principles governing such cases. Some of the paragraphs have been omitted, on account of a partial repetition, but nothing material is left out.

"The State Board of Medical Examiners, recognizing the interest shown by the medical profession throughout the state in the prosecution of offenders under the Medical Practice Act, and gratefully acknowledging the pecuniary assistance received, deems it but fair to publish a statement of the proceedings in the case against Dr. Edward N. Flint, the final outcome of which has caused much disappointment. The proceedings are too lengthy to be published in full, but the following abstract will sufficiently cover the main points.

" 'On December 20th, 1900, Dr. Edward N. Flint was cited to appear before the State Board of Medical Examiners on January 24th, 1901, to answer to the complaint made by Dr. Gustave Renz, of St. Paul. A copy of the complaint was attached to the notice and Dr. Flint was called upon to answer to the charges made, and to show cause, if any, why the license granted to him to practice as a physician and surgeon in the State of Minnesota, should not be revoked. The complaint affirmed,

" 'First. That Dr. Edward N. Flint was, on or about the 6th day of January A. D. 1888, duly licensed as a practing physician and surgeon, within the State of Minnesota, by the State Board of Medical Examiners.

" 'Second. That one Wallace A. Reinhardt was, on or about the 14th day of April, A. D. 1896, duly licensed as a practicing physician and surgeon within the State of Minnesota. 'That said Wallace A. Reinhardt, ever since the 15th day of September, A. D. 1899, has been and now is, a resident of the City of Chicago; but at the same time he has kept and maintained and now keeps and maintains, offices in the cities of Chicago, Minneapolis and St. Paul.' That said Reinhardt advertised himself in his practice under the firm names of 'Dr. Reinhardt,' 'The Guaranty Physician.' 'The Minnesota State Medical Institute.' and 'The State Doctors.' That he advertised extensively in the newspapers of St. Paul and Minneapolis, and by these advertisements wilfully, falsely and wrongfully represented to the public the many and unprecedented cures alledged to have been effected by him. That all these advertisements were false, untrue, dishonorable and dishonest, and were intended by said Reinhardt to deceive and impose upon the public. That Wallace A. Reinhardt, on or about the 12th day of July, A. D. 1900, was tried by the State Board of Medical Examiners and found guilty of unprofessional, dishonorable and dishonest conduct in his practice as a physician and surgeon, and his license was revoked. That Dr. Edward N. Flint was present at all times during the trial of Wallace A. Reinhardt and heard the testimony of the witnesses therein.

"Third. That Edward N. Flint has been guilty of unprofessional, dishonorable and dishonest conduct in his practice as a physician and surgeon. That on or about March 1st, 1900, he entered into an agreement whereby he (Flint) took charge and control of Reinhardt's offices in the City of St. Paul. That ever since the 12th day of July, 1900, Dr. Flint has widely and extensively advertised himself in his said practice in the City of St. Paul and State of Minnesota, under the name of 'The State Doctors' and 'The Minnesota State Medical Institute' by large signs which he, the said Edward N. Flint, caused and permitted to be conspicuously painted, posted and placed in, around and upon the aforesaid offices, and that upon said signs the said Edward N. Flint claims to be able to cure diseases which are incurable, and are known to the said Edward N. Flint to be incurable; and also claims to cure diseases and locate diseases by impossible methods, well knowing them to be such; and by lengthy advertisements which he, the said Edward N. Flint, caused and permitted to be printed, published and circulated almost daily in the newspapers of said City of St. Paul, to-wit: in 'The St. Paul Pioneer Press,' 'The St. Paul Globe,' 'The St. Paul Dispatch' and 'The Svenska Amerikanska Posten,' and in and by the said signs and advertisements and each and all of them he, the said Edward N. Flint, did and still does wilfully, wrongfully and falsely hold out, represent and state to the public the many and unprecedented cures alleged to have been effected by him, the said Edward N. Flint, under the aforesaid names of 'The State Doctors' and 'The Minnesota State Medical Institute.'

"The complaint then goes on to quote advertisements from the daily papers of the cities of St. Paul and Minneapolis, one of which is as follows:

" 'CONSUMPTION. Do not die without making an effort to save yourself. Some people still cling to the notion handed down from their forefathers that consumption is incurable. Many a man lives and is the picture of health, without a sign or symptom of the dread disease to-day, who a short time ago was fighting for his life in the cold grip of consumption. A man can be restored to health even after one lung has been eaten and destroyed and almost annihilated, for people in health now living have been told by reliable physicians that one lung is gone. This is all ironbound fact, and not the mere fancy of the enthusiast.

" 'Take hope, renew your courage. If you or the ones dear to you have the first signs of "The Great White Plague" do not waste a single day, but look about you and see what modern science can do to aid you back to health. The Minnesota State Medical Institute has the best, safest, surest, most scientific means at its command for combating this disease that they could find after years of patient investigation and research. The claims of no means or method have been ignored. They have all been weighed and the method of forcing the healing remedies directly into the lungs, reaching the tubercular bacillus right where it is at work, by means of light and electric rays, has been found to be what the medical profession has been searching for so long, a cure for consumption that cures. They abscolutely cure consumption and are prepared to substantiate every claim made in this connection. Call and find out if your case is a curable one. If it has gone too far to be cured we will tell you candidly and charge you nothing. If you cannot call, write and get free advice as to which you had better do. The Minnesota State Medical Institute. ' "

"In conclusion, Dr. Renz as complainant asked that Dr. Edward N. Flint's license be revoked, and that he be debarred from the practice of medicine and surgery in the State of Minnesota.

"After the trial, the State Board of Medical Examiners found that the following facts had been established: That said Dr. Eward N. Flint was duly licensed to practice medicine and surgery in the State of Minnesota, by a license duly executed and delivered to him, dated January 6, 1888.

"That on the 6th day of March, 1900, the Northern Pacific Railway Company was the lessee of a building situate at the South West corner of 5th and Robert Streets in St. Paul, Minn., and that on said last mentioned date said Railway Company executed a lease of the second floor of said building to one Wallace A. Reinhardt. That said lease contained a provision that said premises should not be sublet without the consent of said Railway Company thereto in writing. That no such consent was ever given to assign said lease. That said Wallace A. Reinhardt was then a physician and surgeon, duly licensed to practice medicine and surgery in the State of Minnesota, and that said Wallace A. Reinhardt prior thereto and during the month of February, 1900, opened an office on the aforesaid premises, under the name of 'The Minnesota State Medical Institute.' That thereafter said Wallace A. Reinhardt transferred his interest in said office and Institute to his mother, Mary A. Reinhardt. That thereafter said Mary A. Reinhardt transferred said office and Institute to her son-in-law, J. W. Ruffner, and that thereafter, and on or about the 21st day of June, 1900, said J. W. Ruffner transferred said office and Institute to his brother-in-law, F. A. H. Reinhardt, who is a brother of the aforesaid Wallace A. Reinhardt. That the amount of the consideration for said transfers, or any of them, does not appear. That said F. A. H. Reinhardt on the 21st of June, 1900, became, has ever since continued to be, and now is the owner and general manager of said Insitute. That said F. A. H. Reinhardt is not a physician or surgeon, but is by trade a machinist and electrician. That said Dr. Edward N. Flint was employed in said Institute as the sole and only attending physician in charge of all the medical business thereof on or about the 1st day of March, 1900, has ever since continued to be, and now is, such sole attending physician in charge of the medical work of said Institute, and frequently has made and arranged the charge for medical services to be performed for patients for said Institute.

"That said F. A. H. Reinhardt, with the full knowledge, consent and approval of said Dr. Edward N. Flint, caused and permitted to be printed, published and circulated in the 'St. Paul Dispatch,' the 'St. Paul Globe,' the 'St. Paul Pioneer Press' and the' Svenska Amerikanska Posten' of St. Paul and Minneapolis, newspapers of general circulation, printed, published and circulated in the City of St. Paul, Ramsey County, Minnesota, certain advertisements which were compiled by said F. A. H. Reinhardt in part from clippings of similar advertisements published in different newspapers in the United States, and that many of them were shown to said Dr. Edward N. Flint prior to the publication thereof. That said advertisements among other things guaranteed to cure all cases of Catarrh, Consumption, Deafness, Fits, Asthma, Hay Fever and Bronchitis, which should be taken for treatment by said Institute, and guaranteed to effect certain impossible cures by impossible methods.

"As a conclusion, the Board determined that Dr. Edward N. Flint had been guilty of dishonorable and dishonest conduct, and that his license to practice medicine and surgery in the State of Minnesota should be revoked, and accordingly it was so ordered.

"From this order of the Board, so revoking said license, an appeal was taken to the Governor, who in a decision dated May 8th, 1901, says: 'The charges contained in the complaint were substantially that one, Wallace A. Reinhardt, whose license had been theretofore revoked, had caused certain signs to be erected upon the building occupied by Edward N. Flint, and that he, said Wallace A. Reinhardt, had caused certain advertisements to be inserted in the public press, that said signs and advertisements contained false statements calculated and intended to deceive and impose upon the public, and to cause the public to patronize the said Reinhardt; and, further, that the said Edward N. Flint, having full knowledge of said signs and advertisements, and of the purpose and intent of the said Reinhardt to deceive and impose upon the public, and with intent to aid and abet the said Reinhardt, on or about the 1st day of March, 1900, entered into an agreement and understanding with said Reinhardt whereby he, the said Edward N. Flint, took charge of the office of, said Reinhardt and occupied the same as a practicing physician and surgeon. That the said Edward N. Flint entered into said agreement and understanding with said Reinhardt for the dishonest purpose of alluring, deceiving and cheating those who came to said office for treatment. That under and pursuant to said agreement said Edward N. Flint extensively advertised himself in his profession in the City of St. Paul under the name of 'State Doctors' and 'The State Medical Institute,' and that he, the said Edward N. Flint, 'caused and permitted' the said signs to be erected and the said advertisements to be printed, published and circulated.

" 'The chief contention on the part of the said Edward N. Flint upon the hearing upon appeal, was that there existed a substantial variance between the allegations of the complaint and the evidence, and that the proof was insufficient to sustain the charges preferred.

" 'A careful examination of the evidence leads to the conclusion that said Wallace A. Reinhardt and the said Edward N. Flint did not enter into an agreement as alleged, or any agreement whatsoever. That said signs appearing upon said building were erected by said Wallace A. Reinhardt long before said Edward N. Flint took charge of said office. That the said Edward N. Flint was employed by one Frank A. H. Reinhardt, who was the owner and proprietor of said business, in the capacity of an attending physician. That said Edward N. Flint received from the said Frank A. H. Reinhardt a stipulated salary for his services. Neither does the evidence show that the said Edward N. Flint caused, or permitted, the said signs to be erected, or the said advertisements to be inserted in the daily press. In short, the evidence simply shows that the business was conducted by Frank A. H. Reinhardt, and that the signs upon the building were maintained by him, and the advertisements appearing in the public press were inserted through him, and the said Edward N. Flint was in his employ for the purpose of attending patrons of the office.

" 'It is hence very clear that a marked variance appears between the allegations of the complaint and the proof offered and received. It is apparent that the complaint was based upon the assumption that Dr. Wallace A. Reinhardt, notwithstanding the revocation of his license, was still the proprietor of the said business, and that the said Edward N. Flint was aiding and abetting him in the maintenance of said business by taking his place in the said management thereof. If the complaint had charged the said Edward N. Flint with prescribing for patients for compensation, and that patrons, with the knowledge of said Flint, were lured to said office and were deceived by said signs and advertisements, and that said signs and advertisements were displayed for the purpose of deceiving the public, and did deceive the public to the knowledge of said Flint, then it might properly be claimed that the proof upon the hearing was sufficient to sustain the findings and order made by the said Board of Examiners.

"'The conclusions herein expressed have been reached after a review of the testimony and a careful perusal of the report of the Attorney General, who has given the record in this proceeding his consideration. Said report is hereto attached.

"'In view of the variance between the proof and the allegations as above indicated, I am forced to the conclusion that the said order made by the said State Board of Medical Examiners should be and the same is hereby reversed.

(Signed) S. R. Van Sant, Governor."'

"The opinion of the Attorney General is not given here in full, because it is covered in substance by the decision of the Governor. The concluding paragraphs of the same are as follows: 'It appears from the evidence that the signs in question were erected a number of months prior to the employment of Dr. Flint and without his knowledge. That he knew such signs had been erected, and from the very nature of things knew that such advertisements were being published, must be assumed.

"'The gravamen of the charge upon which he was tried was that he 'caused' such signs to be erected and notices to be published, while the proof wholly fails to substantiate such allegations. The bare fact that such signs remained upon the outer walls of a large business block in which Dr. Flint was employed, of itself is not enough to support the allegation of professional dishonesty.

"'Had the complaint against Dr. Flint charged him with prescribing for patients at the office of the Minnesota State Medical Institute either for compensation from unknown parties in the nature of a salary, or for fees paid by such patients, and that such patients were, with the full knowledge and approval of Dr. Flint, lured to such Institute or office by the false, dishonest and misleading advertisements or signs set forth and referred to in the complaint, and that such advertisements were published and signs erected by Frank A. H. Reinhardt, or some person unknown to then, in my opinion, the evidence adduced at the hearing would have been amply sufficient to warrant the decision of the State Board of Medical Examiners.

"'Upon the other hand, in my judgement, a clear variance exists between the allegations of the complaint and the proof adduced, and the record does not disclose sufficient evidence to warrant Your Excellency in affiming the decision of such Board. Yours respectfully,

W. B. Douglas, Attorney Gen.'

"From the foregoing it will be seen that both the Governor and the Attorney General were satisfied that it was really shown that Dr. Flint had been guilty of unprofessional conduct, and that the Governor's decision was based upon a legal technicality, that is, that a variance existed between the allegations of the complaint and the proof. The Board feels that both from a medical and a legal standpoint it was justified in revoking Dr. Flint's license, and that the experience gained will be a valuable one when another such case shall be brought before it."

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DELETERIOUS EFFECTS OF ALCOHOL. In the discussion on alcohol at the Edinburgh Medico-Cherurgical Society, Dr. Clouston stated that alcohol was responsible for twenty to twenty-five per cent of mental diseases, but that in connection with this fact must be considered the neuropathic brain on which the alcohol has to work.

the inference being that if this did not disturb the mental balance, some other factor would, and also that in many cases the excessive use of alcohol is the symptom rather than the cause. Alcohol had its most potent and temporarily fascinating effects on the most sensitive brains, recognized as belonging to artistic and poetic individuals; while it produced intense enjoyment, it no less exerted destructive influences; but when a reasonable moderation was practiced, he considered that the ethical sense of mankind was not disturbed. Alcohol produced its effect more easily on the subject who had become addicted to its use, some molecular change in the brain cells occurring which rendered them more irritable. He admitted the effect of excessive alcoholism on the higher nervous functions to be terrible, and thought that, considering the prevalence of the neuropathic brain and the ignorant abuse of alcohol, the profession should emphatically express an opinion to the effect that this excessive use of alcohol is one of the most menacing conditions of modern society.—New York Medical Record, Sept. 7, 1901.

## THE THERAPEUTIC EMPLOYMENT OF CACODYLIC ACID.

Of the therapeutic utility of arsenic there is no need to speak, but there has recently been put forth by French clinicians an arsenical preparation—namely, cacodylic acid—for which claims have been made with regard to its innocuousness and its greater efficiency. The first of these claims has not been sustained, as toxic effects have been noted as a result of the employment of cacodylic preparations, while if their usefulness is by any means as great as they are given credit for, we have, indeed, come into possession of a most valuable therapeutic agent. Thus, according to Armand Gautier, cacodylic acid and the cacodylates render remarkable service in the most varied affections, and particularly tuberculous affections—pulmonary, osseous, visceral—diabetes, neurasthenia with general wasting and impairment of function, visual distubances, malarial intoxication, influenza, profound anemia, asthma, chorea, protracted convalescence, wounds with loss of tissue, fractures, the effects of repeated pregnancy, incoercible vomiting, myxedema, diseases of the skin, etc. They have yielded variable or doubtful results in cases of paralysis agitans, the degenerations attending mental disorders and cases of carcinoma. They may be employed for a number of years consecutvely without causing derangement of nutrition, congestion of the liver or kidneys, intestinal tract, nervous centers and the skin. They act by stimulating the reproduction of cells, increasing the number of red blood-corpuscles, rejuvenating the tissues and conferring upon the economy an extraordinary degree of resistance to morbid influences. While we are scarcely so sanguine as to hope for a realization of all that is promised in the foregoing, we feel that the remedy is deserving of judicial trial, and that its continued use should be decided for or against on its merits. Although the current price of the drug—about five dollars an ounce—seems extremely high, the cost of the individual dose or of sufficient for a course of treatment is really not so, as an ordinary dose is about one-sixth grain.—Jour. Am. Med. Ass'n, Aug. 17, 1901.

## SCIENTIFIC AND PRACTICAL FACTS ABOUT DIARRHEA.

Prof. White, of the University of Dublin, proved by careful detailed studies as to the action of Angier's Petroleum Emulsion upon the various microorganisms that inasmuch as petroleum offers no food for bacteria they cannot thrive in this medium: consequently petroleum is both aseptic and antiseptic. By an elaborate series of laboratory experiments, Dr. White found that the petroleum emulsion inhibited alcoholic, lactic and butyric fermentation, as well as the growth of putrefactive bacteria, which have their habitation in the intestinal canal.

Dr. W. D. Robinson, a well-known authority on diseases of the stomach and intestines, states in the Medical News (July 14, 1900):

"I have extensively given petroleum and sabol four times a day, and reclaimed the oil from the feces, and found it to contain some salol and its components, phenol and salicylic acid. This proves the carrying of a chemical antiseptic and antiferment through the entire canal. It is a solvent of iodine, sulphur, betanaphthol, naphthline, menthol, thymol, camphor and icdoform." By combination of any of the antiseptics mentioned with Petroleum a free-germ condition of the intestinal canal is assured, and which is not, according to the highest authority, obtainable by any other means.

Dr. Fothergill, director of the Clinical Laboratory, Manchester Hospital, England, employed the unusually large resource of his clinic to determine how infantile diarrhea could be satisfactorily treated. This authority reported (Medical Chronicle): "Petroleum Emulsion was used in thirty-four cases. One child died. In the remaining cases recovery was rapid and complete. There was no derangement of the stomach. Vomiting ceased almost before the diarrhea was checked, and the stools soon recovered their normal color and consistency. The Emulsion seemed also to favor recovery from the accompanying bronchial catarrh. These experiments seem to prove that infantile diarrhea can be treated successfully without the use of opium or astringents."

It is for these reasons—inhibition of germ life, sedative healing action on ulcerated and inflamed intestinal mucous membrane, etc., that Angier's Petroleum Emulsion has been so successfully employed in constitutional and intestinal affections associated with diarrhea. —Medical Sentinel.

## EXPERIMENTS UPON THE LIQUID OF THE INTERNAL EAR.

In a paper recently read before the Academie des Sciences, M. Marage describes a series of experiments made upon the crystals which are found in the liquid of the internal ear. This liquid contains more or less voluminous crystals which have been called "otoliths." The different hypotheses which have been advanced to explain the acousic action of these solid bodies seem to be scarcely probable, and in any case are not founded upon experience. The author has undertaken a series of experiments using the liquid obtained from the frog's ear and draws some conclusions as to the character and composition of these crystals. In the case of the frog, the contents of the internal ear have a milky appearance, and it is possible to secure as much as one or two hundredths of a grain. He finds the density to be 2.18, which is a very high figure. As to its composition, it is a solution of carbonate of lime and of magnesia in a liquid charged with carbonic acid. In contact with the air the carbonic acid gas disengages very rapidly, and it is easy to detect its presence. The liquid itself is very volatile; under the microscope it is seen as an oily substance which condenses in drops. It has been impossible to collect a sufficient quantity to determine its composition. The crystals which remain are formed of carbonate of lime and very small quantities of carbonate of magnesia. The most voluminous of these crystals are about the same size as a blood corpuscle; the others, representing about 98 per cent, are much smaller and there are a great number which are scarcely visible with a magnifying power of 450 diameters. These otoliths are soluble in water charged with carbonic acid gas and can be made to reappear upon evaporation. The contents of the internal ear are thus seen to be formed of a solution of bicarbonate of lime and of magnesia with crystals in excess of insoluble carbonates. The great density of this mixture makes it an admirable conductor of sound. The existence of the crystals may also be made manifest in the living animal; the author has made radiographs of a frog under suitable conditions, and the presence of the otoliths has been revealed by a small round spot on each side of the head. To sum up, M. Marage comes to the conclusion that the liquid consists of a solution in a liquid of undetermined nature, of bicarbonate of lime and traces of bicarbonate of magnesia with srystals of carbonates in excess, and that one of the functions of the otoliths is to maintain as nearly constant as possible the acoustic conductibility of the medium. He intends to continue his researches upon the ear of mammiferes and the human ear.—Scientific American.

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PROFESSOR KOCH HAD A PREDESESSOR in his so-called new theory concerning tuberculosis. In April, 1899, Dr. Edward Moore of Albany, the veterinary editor of the Country Gentleman, who had made a study of tuberculosis for more than twenty years, and written extensively editorially upon the subject, read a paper before the Albany County Medical Society in which he presented precisely the same ideas upon tuberculosis as those advanced by Dr. Koch at the British Congress, says the Medical Times. On Dr. Moore's attention being called to the subject in which reference was made to his own freely-expressed views in his address, editorials and arguments before legislative committees, he said:

"My discovery, if you want to call it by that name, was the result of years of observation, extending back a number of years before bovine tuberculosis was known by that name. I have examined a great many herds of cattle and have had an opportunity to examine not only the cattle, but to observe the families of the owners of these cattle who were making daily use of the product of the cattle as food—milk, cream, butter and meat. I could not attempt to enumerate the number of cases in which I found herds of cattle containing a large percentage suffering from bovine tuberculosis, but in not a single one of these instances did I ever see any member of a family that had been using the products from tubercular cattle who was affected with tuberculosis.

"The fact that tuberculosis was not transmittable to human beings through the medium of food, however, did not prove that it was not transmitted by infection, so I observed closely the health of the persons who had the care of diseased cattle. The attendants breathe the germ-laden atmosphere, they handle the cattle, and, no doubt, sputum from the cattle is often conveyed into their nostrils and mouths A finer opportunity for contracting the disease could not be imagined, and yet in all of my investigations I never have found a case in which a man having the care of tuberculous cattle contracted the disease from them.

"In August, 1899, when a legislative committee of this State was investigating the subject of animal diseases, with especial referrence to bovine tuberculosis, I apppeared before that committee and said: 'I predict that you will find that where cattle tuberculosis is plenty, human tuberculosis is so rare as to bear no relation to it; that while you are in the thick of bovine tuberculosis you are practically outside of the consumptive belt. But again I warn you not to accept my opinion. Go prove it right or wrfong.'

"'The committee completed its investigation and one of the results of it was the abolition of the Tuberculosis Committee of the State Board of Health. So you see that nearly two years before Professor Koch had declared that human beings were in no danger of catching tuberculosis from cattle we had been able to convince the authorities of this State that there was no danger of any such thing.

"There is practically no limit to the array of evidence which I have received to prove that there is no danger of the transmission of this disease from animals to man. I have a letter from Dr. L. Emmett Holt, of New York City, in which he states that in 160 cases of infant deaths from tuberculosis in only one did he find that the disease started in the intestinal tract. An investigation of the deaths of infants who have been fed on prepared foods shows that they are more numerous than the deaths among infants who have been fed on the milk from cows, and yet these prepared foods are subjected to a temperature, in the course of preparation, that would kill all germs."

Continuing the Medical Times says: "Whether further investigation will more firmly establish the truth of the new theory or not, it is evident that meat or milk from diseased cows must be prejudicial to health and should still undergo the most careful inspection.

"We should expect that as a natural sequence to the line of investigation determining the cause of those fearful maladies common to every part of the world. such as the various types of malaria. diphtheria and tuberculosis, there would be discovered the law of prevention and. to a certain extent, that of cure. What is now being accomplished in the prevention and treatment of the various forms of so-called malarial troubles would extend to the destruction of the bacillus tuberculosis of consumption. whose appearance in the lungs so often sounds the death knell of the victim.

"The tuberculin discovery of Koch on the treatment of tuberculosis has proved, to a certain extent, a failure, possibly because it was announced before it had been fully tested, and without sufficient care in its preparation. Mr. E. C. Getsinger, one of the most careful and minute investigators in the line of modern science, especially in biology, claims to have made a discovery in therapeutics of an agaent which will thoroughly destroy every vestige of the tubercular bacilli, even in the most advanced stages of consumption, in from fifteen to twenty days. Before being given to the profession Mr. Getsinger proposes testing his remedy in some of the large hospitals in this city during the coming winter, the cases being selected by acommittee of physicians whose names will be a guarantee for the truthfulness of their report. Daily bacteriological examinations will be made and every step of the investigation watched with the utmost care. Measures will be taken to secure the absolute purity of the remedy and its manufacture, in strict conformity in material and combination with the original formula."

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UNIVERSITY MEDICAL STUDENTS. The medical students of the state university met in the old medical building on the evening of the 23rd ult., and listened to addresses from Dean Ritchie, President Northrop, Dr. J. E. Schadle, of St. Paul, and Governor Van Sant. The dean presided over the meeting and introduced the various speakers. President Northrop formally welcomed the new students to the university and said that while it was impossible for him to know every "medic" personally, he wanted all of them to know him.

"After you have graduated," said he, "if I come to the town in which you are practicing I shall expect you to take me for a drive in your carriage. However, if you haven't one, but use a bicycle, you will have to ride alone, so far as I am concerned." Continuing the president impressed upon his hearers the idea of loyalty to the university, and the necessity for honest, consciencious work in their studies.

Dr. Schadle read a paper in which he touched upon the principal events in the history of medicine from 500 B. C. to the present time. Gov. Van Sant was the last speaker. He drew a lesson from the life of President McKinley, and said that his career was an illustration of what could be accomplished by hard, faithful work and high moral courage.

BEAUTIFUL MILLE LACS. In the September Dial there appeared an editorial on "Pure Water," which called attention to the advisability of tapping Mille Lacs to obtain an abundant water supply for both Minneapolis and St. Paul. In a recent issue of the Minneapolis Daily Journal Mr. A. T. Ankeny furnished an entertaining letter in which he painted the beauties of the lake, as follows:

"The lake itself is a magnificent sheet of water. It has a quite regular and almost circular form, being about seventeen miles long by about fifteen miles wide. Its shores have a gradual slope and its sands are those of the ocean beach. As one looks out upon its broad expanse several islands, probably of volcanic creation, are distinctly seen. Except for the scattered settlers along the shore, and the 500 or 600 remaining Indians, the lake itself appears almost as "primitive" as it did to the explorers 250 years ago. A lumber company has on it a steam tug to tow logs to the outlet at Rum river, and a small steam launch carries the occasional visitor from shore to shore. Numerous rowboats used in fishing are also there."

THE DOUGLAS COUNTY MEDICAL SOCIETY (Wisconsin) held its annual meeting and election of officers on the 4th ult., at the West Superior hotel. Retiring President George Saunders delivered his annual address, and Doctors C. M. Gould, W. E. Ground L. B. Shehan and H. J. O'Brien delivered impromptu addresses.

Officers were elected as follows: President, H. J. Orchard; vice president, A. W. James, of Solon Springs; secretary, Louis Moody; treasurer, P. G. McGill; censors, Doctors Specht, O'Brien and Baird.

The event was one of the most enjoyable in the history of the society. A splendid banquet was given, at which a string orchestra furnished lively music.

THE DOCTOR AS A "MARK." A curious phase of "The World of Graft" is just now developing itself in the persistence and thoroughness with which the profession is being plied with circulars, pamphlets, and alleged periodicals lacking the imprimatur of "second-class matter," and all advocating investment in "high-class securities," wheat, mines and the like.

All of these schemes, however much they may differ in detail, are alike in one particular, that the doctor is to deposit his money in advance, and trust to the "broker" to get it back again. Some of these circulars, and they represent, perhaps, the fairest of the lot, are from bucket shops, which charge one-eighth of one per cent on each purchase or sale. Without the use of any surreptitious methods, provided one staid in the game and neither won nor lost, 400 trades would absorb the whole of his employed capital. In mining stocks, of the grade usually promoted in this way, the game is a little different. With them the object is either a straight steal, or a "freeze-out" by means of real or pretended assessments. Still other invitations to invest are scarcely above the level of the "green goods" and "goldbrick" games.

It is hard to see why the doctor should be so persistently cultivated by this class of swindlers. Is he in such easy financial circumstances that he has money to spare for every alluring proposition, or is he so straightened as to be desperate? Or is he so confiding and trustful that whatever he has is at the mercy of any "grafter" who chooses to take it?

In dealingwith men and schemes of this character, no advice can be given better than that of Punch to those about to be maried, "Don't."

If any investment in the hands of men unknown to you looks inviting, go to your attorney, or better, your banker, and let him investigate the standing of the people behind the scheme. Bank references are easily obtained by those entitled to them, and the fact that such are omitted from the circular is usually prima facie evidence of fraud. All the cards are in the hands of the dealer,, and it is his own game, hence a wise caution would consign all such literature to the waste basket or the fire. Any experience with such games may have to be paid for with the savings of years broken health and a tarnished reputation.—Charlotte Medical Journal.

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## HAMLINE MEDICAL SCHOOL.

The Hamline University Medical school, formerly the Minneapolis College of Physicians and Surgeons, was opened again after the summer vacation Wednesday, Sept. 18th, under the most promising auspices. Some changes have been made in the faculty for the coming year. Dr. I. C. Wiig will teach bandaging. During the holidays the college building has been re-decorated and many improvements have been introduced and new supplies and conveniences added. The college is growing and expanding with gratifying strength, and it is expected that the matriculation this year will reach 200.

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## CANADIAN MEDICAL ASSOCIATION.

The Canadian Medical Association Congress opened August 29 with a large attendance of doctors from East and West, and several from the United States. The congress proved the most successful ever held by the association. The attendance was exceptionally large, representatives being present from almost every important center of the continent. The papers read and the discussions were of a most interesting and instructive character, and the entertainment given by the local physicians and citizens could scarcely have been improved upon.

The closing feature was an excursion to Brandon on Saturday, given by the local medical association, principally with the object of showing the visitors some of Manitoba's immense wheat fields. The outing was of the most delightful character. Brandon citizens received their visitors with open arms. After the experimental farm and the insane asylum had been visited, they were entertained at luncheon by the ladies of Brandon in royal fashion.

Not only were the edibles supplied from the larders of the best citizens, but the most prominent ladies of the city waited on the tables.

WISCONSIN WILL ISOLATE CONSUMPTIVES. Dr. F. C. Suiter, member of the Wiconsin state board of health, made the statement that the establishment of camps for consumptives, proposed by the state, would receive his hearty endorsement. The plan is being practiced with great success in the East, and the mobilizing of the tuberculosis victims where they can be properly cared for is thought to be the eventual outcome of the investigation of the disease. The pineries of northern Wisconsin are especially well adapted for the location of such camps. The matter will be acted upon by the state board of health shortly.

THE GLOVE AS AN INFECTING MEDIUM. The surgeon cannot be too careful about his gloves. After operating upon septic cases it is exceedingly difficult to render the hand again aseptic for some time. Hence, the advisability of wearing rubber operating gloves in septic cases. The surgeon is very apt to wash his hands with less care after an operation than before, and going from his operating room into his buggy or carriage draws on his driving-gloves or out-door gloves, which, in turn, rapidly become infected with staplylococci, sreptococci, etc., so that for days or weeks the surgeon's hands are reinfected by means of his own gloves. The same occurred some years ago to an obstetrician in whose practice several cases of puerperal fever arose. After most careful investigation and giving up his obstetric practice, it was found that his driving gloves had been contaminated by his hands from a case of scarlet fever he had treated some time previously. We would urge the necessity of wearing surgeon's gloves at all operations having pus, and we would suggest that the surgeon does not wear outdoor gloves for several days after a septic operation, so that the air and sunshine with the natural attrition of the skin, will destroy the infection, and not communincate it to the glove, which may in turn reinfect the hands for days and weeks thereafter.—Pacific Medical Journal.

CHLORIDE OF CALCIUM is a drug which was held in great esteem by the older practitioners in scrofula and enlarged glands of the neck. It has passed into disuse and still it is doubtful if we have anything better to take its place. Dr. Coghill, of the Royal National Hospital for Consumptives, says, that he has "again and again seen chronically indurated and enlarged glands which absolutely amounted to deformity, which had resisted all previous treatment, yield even in adults, to the adminstration of this salt. In children and younger persons, when the sleep becomes restless, the breath fetid, the tongue foul and coated, the tonsils enlarged, I know of no remedy approaching to it in value. The colloquative diarrhœa, which so often accompanies this condition, and above all, that obstinate dysentery which is seen with hypertrophy of the mesenteric glands, yield to the solution of the chloride of calcium like a charm." The dose is two to four grains for children and ten to twenty grains for adults. It is well given in milk, but syrup of sarsaparilla is said to be the best vehicle. Of course, no physician will confound this drug with chloride of lime—the common disinfecting powder, but to avoid all danger of mistakes, it is well to prescribe the granular chloride of calcium.—Jour. of Med. and Surgery.

NORTHWESTERN HAY FEVER ASSOCIATION. The first annual business meeting of the Northwestern Hay Fever Association was held at the auditorium of the Northern Normal at Marquette, Mich., September 5th. The session was opened by a short address of welcome by President Roe, following which the reports of the officers were read and approved.

The old corps of officers was re-elected as follows: President, W. A. Roe; first vice president, G. G. Gadson; secretary and treasurer, M. D. Goodman, and master of location and transportation, T. W. Cosgrove.

TO ARREST SMALLPOX. I first scrub the skin of the forearms and hands with a strongly alkaline soap water, in order to remove the oil naturally existing in the epidermis. Then I wash the skin with alcohol to kill germs and also to remove oil. Next, the skin is washed with a 1:500 solution of bichloride of mercury. Then it is washed with a solution of peroxide of hydrogen. Each of these washings is of ten or fifteen minutes duration. Finally, the parts are well wrapped in a thick envelope of borated cotton. The washing is repeated daily for three days. I would suggest, in addition, that the face and other parts to which the bath is inapplicable, should be treated by disinfectants spread on lint and applied to the skin. Also, when the patient is found poisoned by purulent infection, I should not hesitate to recommend the subcutaneous injection of anti-streptococcic serum and the administration of cathartics which have the power to produce watery alvine evacuations. For this latter purpose the sulphate of magnesium would stand foremost. Also, digitalis and frequent draughts of water should be used to induce copious diuresis, thereby discharging ptomaines, as would the catharsis just mentioned.—Alonzo Bryan, M. D., in Physician and Surgeon.

VEGETARIANISM NOT WISE. The anthropoid stock from which man evolved fed on nuts, fruit, eggs, small birds and insects. Such is still the mixed diet of the ape, as well as of the Arabs of this age. Owing to the struggle for existence man has evolved into a flesheater, a mixed feeder, and lastly into a vegetarian, but vegetarianism became possible to him only by the introduction of fire and cooking. He has neither the teeth nor the gut of a herbiverous animal; otherwise he would naturally graze the fields, and in winter chew oats in a manger. It has been abundantly proved by breeders of pigs and other animals that the best proportion of albumen to carbohydrates in the diet is 1:5. Among the Eskimo it is found to be 1:29, among Europeans on a mixed diet 1:5.3. The Irish peasant, on the other hand, consumes, or used to consume, a diet containing ten times as much carbohydrates as albumen (1:10.6). A diet such as that of the Irish peasant increases the death-rate in the young and old: that is to say among those in whom the excess of carbohydrate cannot be burnt off by hard bodily labor. Such a diet can be consistently borne only by a man bred to it from infancy and accustomed to the doing of hard work. There is no advantage in vegetarianism as a working diet. The same amount of potential energy (33 per cent consumed as food appears as work in the carnivorous dog, the herbiverous horse, and the omniverous man. No vegetarian animal, not even the horse, ox, camel, or elephant, can carry the weight of his own body. The carnivorous lion, on the other hand, gripping a calf equal to himself in weight, can jump a hurdle 6 feet high. The lifting power of man, the mixed feeder, exceeds that of any other mammal.—Brit. Med. Jour.

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CANCER GERM. It is not at all surprising that the discovery of the cancer germ, or, the report of experiments tending to establish the existence of a specific agent, has been announced. That such an agent would sooner or later be found, has been a fixed belief in the minds of a great many investigators, and on sound scientific principles.

That tumors may be, and are produced by different causes, is most probably true. If the new growths which are seen in tuberculosis, actinomycosis and other infectious granulomata are classed as tumors, the specific agent is well known. In other cases misplaced embryonic tissue seems to be unquestionably the cause, as in certain tumors of the ovary, parotid and other structures.

The question of tumor formation, however, is quite different from that of malignancy, and while tumors, as a class, possess many points in common, the line of demarcation between malignant and non-malignant tumors is far more pronounced, especially when the whole course of the progress of the tumor growth is taken into consideration.

On the other hand we have an apparently purposeless growth, producing ill results only on account of its presence and its damage to adjacent structures. On the other hand, we have a growth active in the production of general systemic disturbances.

The evident hereditary tendencies, the prevalence in certain localities, the cases of undoubted contagion, the general systemic infection and the result of experimental work, all coincide so closely with the general course of well-known infectious diseases that the presence of a germ must be assumed in explaining this remarkable phenomena, if indeed its existence is not proved thereby.

While the work of Gaylord, as announced, is far from conclusive that the actual organism has been found, his results are sufficiently remarkable to occupy the attention of the medical world and to stimulate additional effort in this important direction.—Medical Sentinel.

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SMALLPOX, AND CIDER VINEGAR AS A PREVENTATIVE. The vinegar treatment as a preventive against contagion of smallpox, discovered and introduced by Dr. C. F. Howe, county health officer, Aechison, Kansas, has passed the point of mere theory and is now an established fact, having been efficient in several hundred cases of exposure in the city of Atchison and Atchison county. Many of these exposures have been the nurses, as well as many others that it was impossible to isolate from the original case of small pox for the want of room. In other words, anyone, vaccinated or not, can nurse a case of smallpox without fear of contracting the disease if, at the same time, he uses the vinegar in tablespoonful doses four times daily in half cup of water. It can be taken in less amounts for children, or more by adults.

Dr. Howe advises the use of pure cider vinegar only, as all others contain alcohol. Even after the person exposed has run almost the entire incubation period, the use of vinegar will either abort the disease entirely, or modify to the extent of having all the prodromal symptoms without the disfiguring eruption. To get the immediate control of a smallpox epidemic in a community, everyone should take a course of vinegar for a week, whether exposed or not.

Dilute vinegar applied locally will control the itching of smallpox. A slippery elm poultice applied to the face while in the vesicular stage will not only abort the pustular stage, but prevent the pitting. The poultice must not be used until the vesicles have formed.—American Medical Journal.

AGAINST SUBSTITUTION. The Tennessee Legislature has passed the following act and the Governor has signed it; it is a law. Other states should follow the example and at the next session pass a similar law.

An Act to prevent the substitution of any drug in filling physicians' prescriptions by druggists in the State.

Section. 1. Be it enacted by the General Assembly of the State of Tennessee, That it shall be unlawful for any corporation, firm or person, or any combination or association of corporations, firms or persons engaged in the business of buying, compounding and selling drugs and medicines to substitute any drugs or medicine in lieu or instead of that given to the patient by the physician on the face of his prescription.

Sec. 2. Be it further enacted, That it shall be unlawful for any agent or employe of such person, firm or corporation or association or combination of persons, firm or corporations engaged in the business of buying and selling drugs in this State to substitute any medicine for the specific medicine mentioned in the physician's prescription.

Sec. 3. Be it further enacted, That any person, firm or corporation violating the provisions of this act, or aiding of abetting the violation of the same shall be guilty of a misdemeanor and upon cinviction shall be fined not less than $25 nor more than $100 for each and every offense.

Sec. 4. Be it further enacted, That this act take effect from and after its passage, the public welfare requiring it.

DETECTING HUMAN BLOOD. A new and seemingly important plan has been brought out by M. S .Cotton in Bull. Soc. Chimique de Paris. Blood will liberate oxygen from hydrogen peroxide. Using 1 c.c. of blood with 250 c.c. of hy. per., he obtained for man, 580 to 610 c.c. O., for horse and pig, from 320 to 350 c.c.; for ox, 165 to 170; for guinea pig. 115 to 125; and for sheep, from 60 to 65 c.c. This large excess in man over all the lower species would seem to be of diagnostic value.—Am. Microscopical Monthly.

MEDICAL APHORISM. 1. Life is short, patients fastidious, and the brethren deceptive. 2. Practice is a field of which tact is the manure. 3. Patients are comparable to flannel—neither can be quitted without danger. 4. The physician who absents himself runs the same risk as the lover who leaves his mistress; he is pretty sure to find himself supplanted. 5. Would you rid yourself of a tiresome patient, present your bill. 5. The patient who pays his attendant is but exacting; he who does not is a despot. 7. The physician who depends upon the gratitude of his patient for his fees is like the traveler who waited upon the bank of a river until it would finish flowing that he might cross to the other side. 8. Modesty, simplicity, truthfulness—cleansing virtues, everywhere but at the bedside; there simplicity is construed as hesitation, modesty as want of confidence, truth as impoliteness. 9. To keep within the limits of a dignified assurance without falling into the ridiculous vauntings of the boaster, constitutes the supreme talent of the physician. 10. Remember always to appear to do something—above all when you are doing nothing. 11. With equal, and even inferior, talent the cleanly and genteelly-dressed physician has a great advantage over the untidy one.—Canada Lancet.

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A CURIOUS METHOD OF POISONING. (J. A. Henton White, M. D.) At 11:30 p. m. on March 31, Mrs. Y. brought her baby, aged three months, saying that it was dying. The infant was very pale and cold ;its pupils were minutely contracted, and it could with great difficulty be roused up. I inquired if any sleeping draught or soothing syrup had been administrated, but this was denied. Mrs. Y., however, mentioned that she had put a pledget of cotton-wool soaked in laudanum in her tooth, which was aching during the evening. She was quite sure the baby had had none. Under the circumstances I washed out the baby's stomach, by means of a soft rubber catheter, with very weak Condy's fluid, and left in a drop of liquid extract of belladonna. I also gave small enemata of black coffee and roused up the infant. In about half an hour I sent it home, telling them to keep it warm but awake. They sent for me about 1 a. m., and I found the child awake, pupils very big, and skin rather flushed from the belladonna. I ordered a warm bath, and next day found the child quite well.

On questioning Mrs. Y. I ascertained that she was in the habit of moistening the teat of the baby's bottle in her mouth before giving it to the child, as "it took to it better." She did not think she had done this more than twice or three times during the time she had the laudanum in her mouth. She was sure the child could have got the poison in no other way.—N. Y. Lancet.

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THE USES OF CURIOSITY. Professor Clifford Allbutt recently gave an address which he began by explaining how it was he had taken up the medical profession. When he became a student anyone who desired to know about things, anyone, for instance, who was interested in butterflies, was immediately marked off to be a doctor. In the little laboratory he had made at home, where he performed certain experiments on rats, and tried to gratify the inordinate curiosity with which his mind was then possessed, he did what work he could, and though his investigations led his relations to say that he must go in for medicine, he had not yet been able to satisfy his curiosity to the extent that he would like. Allbutt then quoted from Hobbes the following: "Curiosity is in man such as in no other living creature; so that man is distinguished not only by his reason but also by his singular passion, from all other animals, in whom the appetite for food and the other pleasures of sense, by predominance, take away the care of knowing causes; which is a lust of the mind that, by a perseverance of delight in the continual and indefatigable generation of knowledge, exceedeth the short vehemence of any carnal pleasure."

It was a misfortune that this spirit of curiosity which was so stimulating should be choked systematically as it was from the very earliest days. A child was more or less interested in the concrete but not in abstract terms. A boy, however, was set to learn by rote abstract generalizations of the meaning of which he had not the faintest notion, and his curiosity in regard to things was extinguished early in life. Curiosity, however, had a chance of fair play in medical schools, and the medical student was incessantly watering the plant of curiosity.

Medical teaching used to consist in the handing down of abstract generalizations from one generation to another. In the present day there were three methods on which the study of medicine rested—observation, experiment, and the experimental method. By the experimental method he meant the systematic investigation of a subject step by step.

Referring to the accusation of medical men experimenting on their patients, the professor said that medical men must be incessantly trying experiments because every sick man was a riddle, and an exceedingly complex one. He contended that the smallest dose of domestic medicines was an experiment, and that scientific habit of minds and scientific methods had not conduced to any indifference to the welfare of the patient. The heavy bleeding and heavy purgation of their predecessors were experiments which were made with ignorant readiness, but the scientific methods of today made them aware how enormously difficult it was to treat patients without sometimes doing more harm than good. —N. Y. Lancet.

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VULNERABLE POINTS IN MEDICAL LEGISLATION. The ultimate intent of medical legislation is unquestionably good. Its motive is a laudable one. It aims to directly benefit suffering humanity, not to establish a doctor's trust, nor to stifle competition, nor to strangle any practical new idea or system of treatment in its infancy. Enforced unification of standards on the part of medical colleges would simplify matters. It would result in a diploma being generally recognized for what it purports to be—a certificate of actual fitness to practice medicine. It would enable the recognized graduate in one state to move into another at his own will. It would remove all injustice and hardship now endured ,not always patiently, by qualified physicians. It would strike the Upas tree at its root instead of lopping off its branches. It would do away with the manifest injustice to really qualified and honest college faculties, now inflicted by postmortem dissections of their deliberate decisions. In a word, it would reduce the present complicated legislative machinery to a very simple and effective mechanism. Given a concise, yet comprehensive, definition of what constitutes the practice of medicine, a uniform requirement that all who engage in such practice should have a medical diploma, and a legislative guarantee based upon actual information that such diploma says what it means, and means what it says, quackery would find life a burden in this country. The qualified physician of one state would be a qualified physician everywhere. The pretender might travel from Maine to California and from California to Maine again, looking in vain for a chance to plunder the people.—Dr. Harvey B. Dale, in Chicago Clinic.

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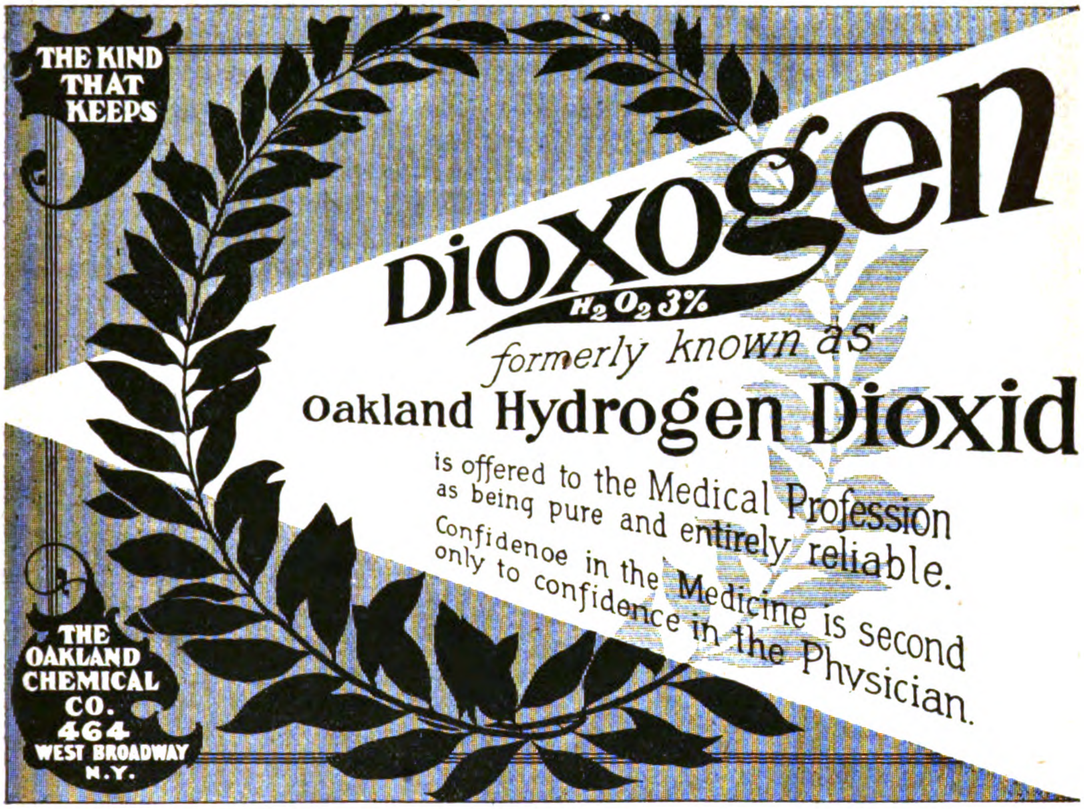
AN ENGLISH TEST OF KOCH'S THEORY. King Edward has appointed a commission to investigate Professor Koch's tuberculosis theory. The scope of the inquiry is said to be whether animal and human tuberculosis are identical, whether animals and human beings can be reciprocally affected, and under what conditions, if at all, transmission to man occurs, and the means of combatting it.



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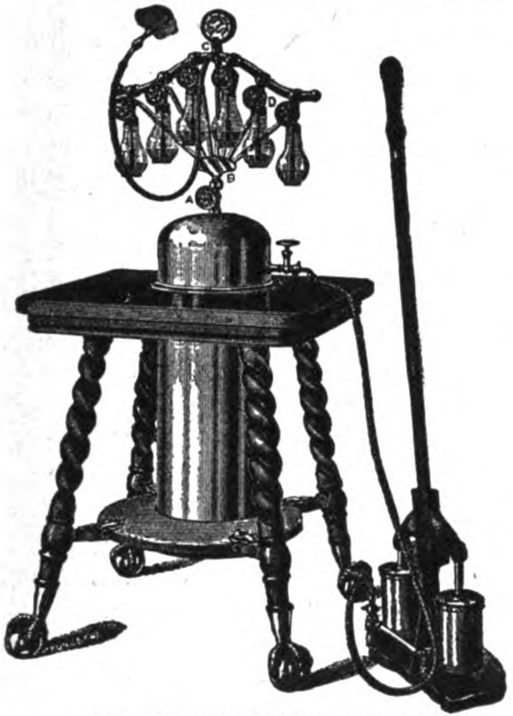

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## NUTRITION IN DIPHTHERIA.

Kirton (Lancet) contends that feeding is of great importance in the treatment of diphtheria. He considers the various methods of feeding: (1), feeding by the mouth; (2), the nasal tube; (3), the rectum, and (4), subcutaneous injections. Nasal feeding is indicated when there is an inability to swallow from irritation, or when due to a paralysis of the muscles of deglutition, etc.; when feeding by the mouth produces coughing or vomiting, or in cases which are exhausted by mouth feeding, and in some cases the moral effect of nasal feeding induces the patient to take food by the mouth. Rectal feeding is indicated when there is vomiting, difficulty in passing the nasal tube, or when nasal feeding induces struggling, fright or epistaxis. The author believes that subcutaneous injections of horse serum are beneficial. In the author's practice he frequently combines the various modes of feeding.

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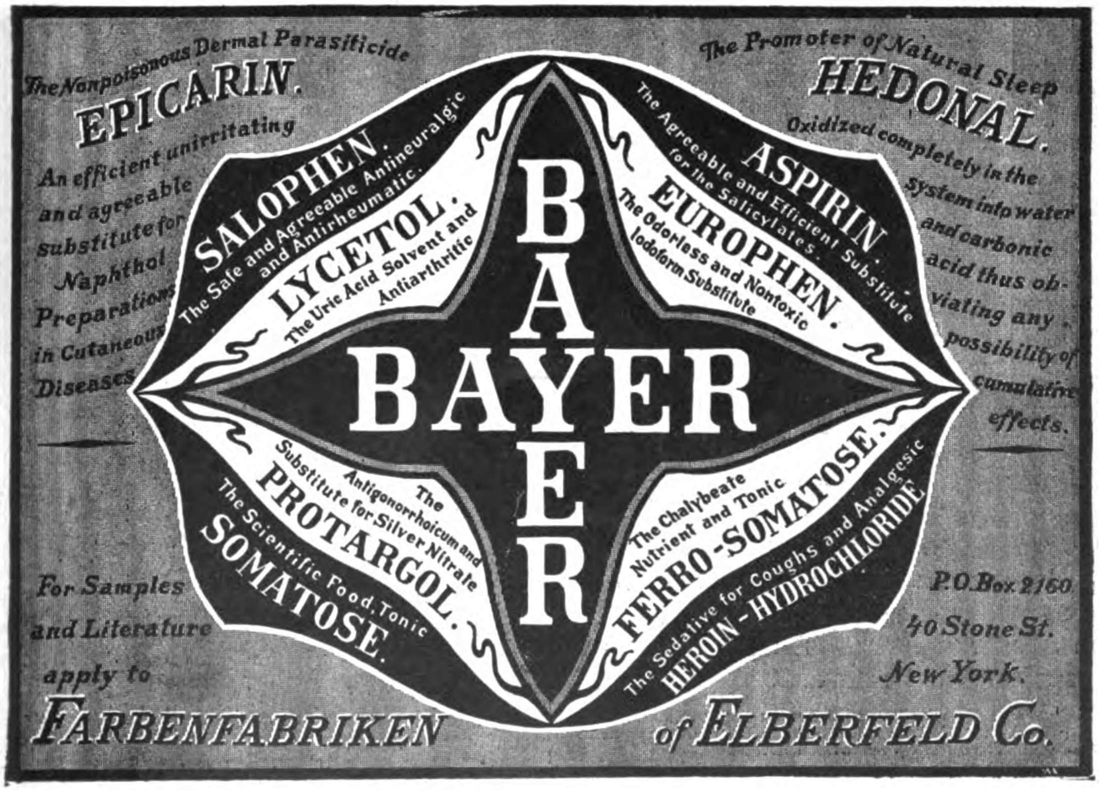

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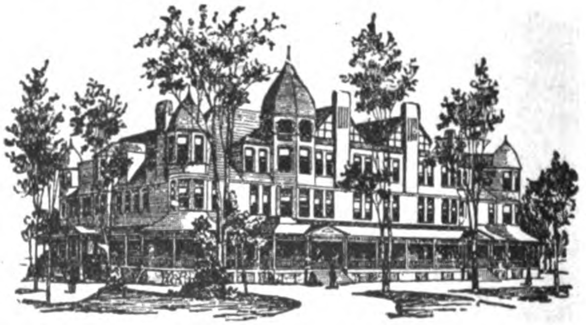

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# The Natural Food Co.'s Editorial Page.

## Whole Wheat as a Food Product.

"What we eat and drink for the purpose of nourishing the body constitutes our food. When we come to analyze the various animal and vegetable foods made use of by mankind, it is found that they are all composed of one or more of five or six different classes of substances to which the name 'food-stuffs,' or alimentary principles, has been given. To ascertain the specific, nutritive value of any food, it must be analyzed and the percentage amounts of the different food-stuffs contained in it must be determined. The essential use of the PROTEIDS in the body is that they supply the material from which the new tissue is made and with which the old tissue is repaired. Inasmuch as the most important constituent of living matter is the PROTEID part of its molecule, it will be seen at once that PROTEID food is an absolute necessity. If our diet contained no PROTEIDS, the tissues of the body would gradually waste away and death from starvation would result. All the food-stuffs are necessary, but PROTEIDS are absolutely essential for the maintenance of animal life—that is, for the formation and the preservation of living protoplasm. Whatever else is contained in our food, PROTEID of some kind must form a part of our diet.

"STARCH is a carbohydrate. Its physiological value lies in the fact that it is destroyed in the body and a certain amount of energy is thereby liberated. Inasmuch as we are continually giving off energy from the body, chiefly in the form of muscular work and heat, it follows that material for the production of this energy must be taken in the food. Carbohydrates (Starch) form the easiest and the cheapest source of this energy."—W. H. Howell, Ph. D., M.D., Prof. of Physiology in Johns Hopkins University.

"The two ultimate uses of all foods are these: First, to supply the body with material for growth or repair; and, Second, to furnish the system energy for action, or the capacity for doing work. Every food, therefore, can be physiologically classified as either a 'Tissue Builder' or a 'Force Producer.' The outer coatings of the WHEAT kernel, called bran, contain a large percentage of albuminous, proteid, material and of phosphates; in fact, MOST ALL of the NUTRITIVE SALTS of Wheat are contained in this BRAN. GLUTEN is a valuable nitrogenous food product, but it is separated in the process of making starch from wheat. In WHOLE WHEAT the GLUTEN NITRATES and the PHOSPHATES are all retained. In the finest flours, all the nitrogenous elements have been largely removed by milling. 'In the average composition of Wheaten bread, Nitrogen exists in the proportion of 1 part to 21 of Carbon.' (YEO.) Besides this deficiency in Nitrogen there is but a trace of fat in refined flour, and very little mineral matter. The WHOLE WHEAT grain contains an amylolytic enzyme, or ferment, resembling diastase, which is called cerealin. This digestive substance acts upon the starch and dextrinizes it."—W. Gilman Thompson, M.D., Prof. of Clinical Medicine in the University of the City of New York.

In the manufacture of SHREDDED WHOLE WHEAT BISCUIT the WHOLE wheat is used and every vitalizing, nutritive and constructive element originally inherent in the complete grain is retained. When you eat them you secure the benefit of every food property known, and you could obtain no more wholesome, healthful nutrition if you were to eat all the kinds of food in existence. The most natural food is the food that best nourishes every structure of the human body in just the proper proportion to its natural requirements.

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Vol. III MINNEAPOLIS, MINN., NOVEMBER, 1901 No. 11

BURNS. In the Medical News for August 24th, 1901, Dr. Frederick Griffin, surgeon to the Bellevue Dispensary, New York, has a paper entitled "A Study of Burns, with a plea for their more Rational Treatment," written as the author states, "to arouse interest in a class of surgical injuries which he believes are neglected." An examination of the medical literature concerning this subject, especially among earlier writers, will confirm the doctor in his statements as to the neglect by authors; it would seem that the accidents were so common, "familiarity led to a partial contempt," and treatment was left largely to domestic remedies, often useless and sometimes not harmless; no treatment, and improper treatment often being followed by frightful deformities. Later authors have called the attention of surgeons to these cases more at length, and in the International Text Book of Surgery by Warren and Wood, and in the Manual of Surgery by John B. Roberts, M. D., of Philadelphia, will be found suggestions for treatment in detail.

Dr. Griffin has thoroughly discussed the subject in all its phases, and quoted liberally from the views of others as to the treatment and management of these injuries. Burns and scalds are the most common, and Dr. Cheever, of Harvard University, states that more than three-fourths of all burns occur in children. This may be a larger proportion than the experience of others will prove, but we know such injuries to children are frequent, and that they suffer more by the shock than older persons from similar accidents. Among adults those exposed as workers in rolling-mills, blast-furnaces, oil-refineries, steam laundries, and turpentine camps, are often sufferers, and there are not seldom other injuries, such as crushing by machinery, in addition to the burns.

In the arts and trades, where escharotic acids and alkalies are used, accidents are common, and the healing process in these wounds is slow. Electricity is also a cause, and burns sometimes follow the X-ray examinations; the burns from the latter are supposed to be caused by the high power of the electric currents rather than from the X-ray itself.

Burns of the eyes are common from lime splashes while it is being slacked and mixed for mortar; they are dangerous from the high heat and the quick chemical change.

Inflammation of the lungs, pleurae and bronchi frequently follows burns about the chest, and when the smoke and flame have been inhaled, death is often sudden; there is congestion first, and the breathing is embarrassed.

About the middle of the last century Curling, called attention to a complication following burns, the ulceration of the duodenum. It was common in children and dangerous; death was caused by hemorrhage, perforation and peritonitis. Curling thought the lesion occurred on account of "an attempt upon the part of the adenoid tissue in the duodenum to assume the functions of the destroyed skin." In a report of 125 postmortems after fatal burns, Holmes found 16 patients with ulcerations of the duodenum. Of these 5 died on the fourth day, 5 during the second week, and 6 at a later period. The cause of this ulceration some surgeons think unknown, "while others believe it is due to a poisoning of the adenoid tissue, especially that of the duodenum, which comes from the blood, or is thrown off by the liver in the bile"; but there are cases of postmortems following death from severe and extensive burns, where no ulcers have been found, and a frostbite is reported to have ended in death and the autopsy revealed ulceration of the duodenum.

Treatment.—Prof. John B. Roberts, M. D., of Philadelphia, in his Manual of Modern Surgery, says, "The constitutional treatment of burns should be directed to the relief of shock and pain, the prevention of secondary visceral inflammations and the support of the general powers of the system; while topical remedies should be employed to relieve pain, moderate local inflammation, prevent infection, hasten cicatrization, and prevent contractile deformity." The immediate relief of pain must be the first act, and by such means as are at once available. For this purpose warm water and carbonate of soda (saleratus), both of which are usually at hand in every house, can be applied. If possible, submerge the whole burned surface and continue the same until other and more permanent dressings can be obtained.

The local treatment will depend upon the degree of the burn. Slight injuries, and of limited extent, are relieved by the application of cold water; but this must not be applied to large surfaces of erythematous burns, as it might congest the internal organs. Blotting paper soaked with molasses is recommended, as it excludes the air and soothes the pain. Molasses applied and dusted with flour is a convenient remedy, and has the advantage of being present in every household; it should not be allowed to remain so long as to become dry and a source of irritation to the surface. All blisters must be carefully opened and the cuticle saved if possible, as it affords the best covering for the wound. So far as possible all friction of the denuded surfaces must be avoided, and substances as dressings liable to adhere in such a manner as to make their removal difficult rejected. Antiseptic applications are in order, and such as are non-irritating; for this purpose, Dr. Griffin recommends hydrogen di-oxide, and considers it better than bichloride of mercury. Houssell of Fubringen, says, "A three per cent. hydrogen di-oxide solution is equal in power to a 1 to 1,000 bichloride solution, acting on bacteria suspended in aqueous solutions."

Burns of the mouth and throat require prompt and active treatment to prevent serious results. Burns from carbolic acid should be treated at once with alcohol, pure or dilute, and immediately followed by water to counteract the effects of the alcohol.

Lime splashes in the eye should be treated by washing out the eyes thoroughly with water acidulated with vinegar, and any small particles not removed by a gentle stream of water should be wiped out with moistened cotton wound on the end of a probe or eye spud. A weak solution of boric acid, about ten grains to the ounce of water, may be dropped into the eye occasionally with advantage after the lime has been completely removed.

In extensive and severe burns the permanent warm bath may be of advantage. The removal of sloughs is always indicated, so that the parts beneath can be properly treated by antiseptics; the choice of these must be made not forgetting the poisonous nature of some if applied to extensive denuded surfaces Borosalicylic solution (Thiersch's) for moist dressings, and simple salicylic gauze for dry dressings are recommended; for granulating surfaces Thiersch's method of skin grafting will hasten recovery. Transplantation also of skin and flaps with pedicles will prevent and repair deformities of contraction.

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## THE STRENUOUS SCHOOL LIFE.

In the Daily Journal of Minneapolis for October 10th, appeared a communication from the father of a pupil in the high school, a girl of 15 years of age, concerning "Lessons in the Public Schools," which ought to attract the attention of those in authority in the management of the school children of the city and others elsewhere, as well. The letter, on the whole, is complimentary of the common school system, but does not endorse all the present-day methods of teaching, and some things that may be properly termed "fads." In his letter the father states that on finding his daughter one evening in her room and in tears, he investigated the cause, and found she had just finished a composition, and had still a Latin lesson to learn, after having worked on other lessons during the afternoon, and was quite discouraged, as well she might be, under the circumstances. He also found the list of lessons for the next day, as follows:

"Twenty problems in Algebra.

"Twenty-one Latin words, give meaning, person and tense.

"Ten English words, give translation in Latin.

"Twelve Latin words, commit to memory, decline adjectives and give declension and gender of nouns, with person and number.

"Two Latin definitions.

"Analyze four pages in reader.

"Give sketch of six gods, Mars, Mercury, Venus, Vulcan, Pluto and Bacchus.

"Write a sketch on why you like your favorite author.

"Write a second sketch on your favorite play, actor or actress."

Not knowing the character of the probelms in Algebra given, it is impossible to determine how much mental labor they might require; but if only a little in advance of her present capacity, as they must be in order to expect any advantage by the study, it would seem an unreasonable amount to impose on a young mind, and concerning a single subject, while there were eight other lessons of equal or greater importance to be examined and learned, Here are nine different topics to be mastered in one day by a child in years and a mind in process of growth that needs rest as much as active discipline to develop its powers and maintain its integrity. More than 250 years ago Hugo Grotius said, "The care of the human mind is the most noble branch of medicine," and teachers should bear that in mind as well as physicians; but it still appears that Grotius was in advance of even the present age of thought in this respect, if such tasks as mentioned above are yet imposed on immature minds in our school-work. No wonder we hear much of "nervous prostration," and other symptoms of ill health, and mental and physical wrecks, "Falling and perishing by the way-side, weary with the march of life."

It is the best and brightest brains that are injured by this cramming process of education, those that need the curb more than the spur to regulate their mental development; lessons for these, and in fact for all, should be gauged in time and amount for the average mind by some rule of common sense, and some knowledge of the capacity and endurance of each individual pupil.

## CANCER AND ITS TREATMENT.

Notwithstanding the frequently repeated announcement that the parasite of cancer has been discovered, the problem of the exact cause of the terrible disease is probably as far from solution as ever. It must be admitted that the question of the treatment of carcinoma is equally unsettled. As evidence of this, Dr. J. M. Baldy, of Philadelphia, at the last meeting of the American Medical Association, stated that only five per cent. of the patients operated on for cancer of the cervix uteri are cured, an opinion which is confirmed by the statistics of operations at Johns Hopkins Hospital. Professor Freund, at the Ninth German Congress of Gynecology, was able to report only two cases of cancer of the uterus permanently cured by surgical operation, in an experience extending over twenty-three years. His enquiries in the various clinics of Germany elicited the information that the average mortality, after abdominal hysterectomy with removal of the larger portion of the parametrium and glands, is 24.6 per cent. and that in 46.6 per cent. of the cases recurrences take place in the first year.

Leser, of Halle, is optimistic and gives an encouraging summary of 529 cases which were treated by him (Munchener Medicinische Wochenschrift, August 13, No. 33), between 1890 and 1900. Of 392 cases which were positively malignant, 78 survived for periods varying from two to eleven years, that is to say, 19 per cent of all the malignant cases. While it must be admitted that the most fatal forms of cancer are those of the tongue and oesophagus, Leser's figures show that 29 of the cases cured were of carcinoma, situated in the gastro-intestinal tract and the rectum.

His methods are very radical. Early diagnosis and thorough removal are his watch words. He does not refrain from operating on any part of the body which may happen to be the seat of the cancer. In carcinoma of the stomach he regards our present means of diagnosis as inadequate and unsatisfactory, and considers exploratory incision not only justifiable but imperative.

Dr. Robert Reyburn (Medical Record. Oct. 19) is very much discouraged over the results obtained by the use of the knife and suggests the following explanation of the failure: "When we make an incision into any part of the body for the removal of a malignant growth, we at once divide and lay wide open for infection every vein and lymphatic vessel in the part operated upon." As a substitute for the knife or an adjunct to it he strongly advocates the use of the electric cautery, the thermo cautery, or in a limited number of cases, the use of arsenic or chloride of zinc for the removal of cancerous growths.

For cancer of the uterus he would advocate the complete abandonment of hysterectomy, partial or complete, and would replace it with the use of the electric cautery as practiced by Dr. John Byrne, of Brooklyn. Dr. Byrne's results are certainly very remakable. In his first series of 367 cases, published in 1889, not a single death occurred. The average length of life of patients, after being operated on in this manner, far exceeds that found in those operated upon by the knife. It was further observed that when the disease did recur, it was rarely found in the cicatrices produced by the action of the electric cautery on the tissues.

A PHYSICIAN OF ARKANSAS writes to the Medical Dial to enquire "how the so-called water doctors diagnose all kinds and cases of sickness by looking at a little vile of the patient's urine." Desiring to be fully informed, he further questions: "What do they put in it? How do they tell?" There isn't a single physician on the staff of this journal who is a water doctor; not one of them would think of mixing the ingredients of his inter-cardiac-pyloric ablutions. Such questions are not quite as puzzling as that of the Maine doctor who wished to relieve a young man in his community, as the latter belonged to the very best family in the place. It seems that the lungs of this young man had sloughed off and dropped into his stomach, and the physician wanted to know how to treat him. Another doctor in another section wrote to a city physician that a certain legal light in his place was evidently in a bad way, as one-half of his brain had dropped unexpectedly into an abscess under the ear. The lawyer was still doing business, but the doctor thought it was an abnormal condition, and sought to relieve the patient, who, at times, had difficulty in deciding whether to address the judge or the criminal at the bar during his brilliant scintillations of oratory.

There isn't any definite method of procedure, as near as we can find out, in use by the "water doctors." Perhaps they first agitate the "vile" to find out the hemoglobin, and then look double to differentiate the diplococci, but we hardly think they put anything into the fluid. We are strongly of the belief that the power of diagnosis outlined by the questioner is purely esoteric.

## BIOGRAPHICAL.

### DOCTORS JACOB AND HENRY JACOB BIGELOW, OF BOSTON, MASSACHUSETTS.

Jacob Bigelow, M. D., L. L. D., was born in Sudbury, Mass., in 1787, and died in Boston January, 1879. He graduated at Harvard University in 1806, and was a tutor there for a while afterward. Selecting medicine as a profession, he began practice in Boston in 1810. He first became widely known as a skillful botanist, and had an extensive European correspondence, and different plants were named for him by Sir J. E. Smith, in the supplement to "Rees' Cyclopedia," by Schrader in Germany, and De Candolle in France. In 1814 he published Florula Bostoniensis (8vo, enlarged editions in 1824 and 1840), and "American Medical Botany" (3 vols, 8vo, 1817-'21). These works are standard at the present day. Without wealth or influential friends in his early life, by his great natural ability and untiring industry he forged his way rapidly to the front rank in his profession and for more than fifty years maintained his position undisputed among the leading physicians of Boston and New England. For more than twenty years he was physician of the Massachusetts general hospital, and in commemoration for his services there the trustees had his marble bust placed in the hall of the institution; during the same time he held the offices of professor of materia medica and of clinical medicine in Harvard University. He also for ten years (1816-1827) delivered lectures on the application of science to the useful arts, at Cambridge, as Rumford professor; these lectures were afterward published under the title of "Elements of Technology" (new edition, "The Useful Arts Considered in Connection with the Applications of Science," 2 vols. 12mo, 1840). In 1820 he was one of the committee of five selected to form the "American Pharmacopoeia," and the nomenclature of the materia medica afterward adopted by the British colleges, which substituted a single word for a double when practicable, is due in principle to him. He published numerous medical essays and discourses, some of which are found in a volume entitled "Nature in Disease" (1854); one of these essays, "A Discourse on Self-Limited Diseases," delivered before he Massachusetts Medical Society, though sharply criticised by some physicians at the time, had great influence in modifying the practice of medicine then and has had ever since.

The Doctor did not confine himself to a limited sphere of literature, but was widely known as a contributor to periodicals and reviews, in both prose and verse. A volume of poems, entitled "Eolopoesis," was attributed to him. As an occasional writer he was conspicuous as a humorist. He had an excellent reputation as a classical scholar, and as an instance of his ability to recall instantly his early studies, when late in his life some students called on him to settle a dispute as to the rendering of a classical passage, they were surprised to hear him strike in and repeat from memory page after page, verbatim, of the author of the passage in question. He was for many years president of the Massachusetts Medical Society, and of the American Academy of Arts and Sciences. After his retirement from active practice he gave much though to matters of education, and was especially interested in technological schools, or such as gave a technical or utilitarian education as contrasted with a classical or literary one. He was the pioneer in the so-called "New Education," endorsed now to some extent by President Elliott, of Harvard, and by others, which aims to employ the time and labor of the student in the pursuit of special technical branches of knowledge, without wasting his energy on classical or other subjects irrelevant to his special vocation. Along this line of education, in 1865, he delivered an address before the Massachusetts Institute of Technology, "On the Limits of Education."

While a young man, a student in Cambridge, he was accustomed to spend much time in the grove on the banks of the Charles river in the vicinity of the college, and he selected the site and was the real founder of Mt. Auburn cemetery, the first establishment of the kind in the United States, and the model of those which have followed. He designed the much admired Stone Tower, Chapel, Gate, and Fence.

The grounds, slightly rolling in surface and having a large variety of trees of native growth, are beautiful by nature, and Art has adorned them with graceful monuments of special elegance and skill.

Doctor Henry Jacob Bigelow, son of the preceding, was born in Boston in 1818, and died there October 30th, 1890. He graduated in the Harvard Medical Class of 1841, and pursued his studies in Paris. While in college he was troubled with hemorrhages from the lungs, and went abroad partly on that account. Recovering his health, he returned to Boston and began his professional life, giving special attention to surgery. In this chosen line he early won distinction as an expert operator, and was especially distinguished as the inventor of the instruments for Litholapaxy and the operation. He also contributed in other ways to the advancement of operative surgery. He published in 1869 a work on the "Mechanism of Dislocated Joints," and contributed many papers to the American Medical Association concerning the "Action of Water on Lead Pipes, on "Anæsthesia, Cinchona Cultivation, Gutta Percha in Urethral Stricture, Hernia," etc. He became widely known at the time of the ether discovery, and was the first to send word to Paris of the success of the "Compound," as it was then called. In the great controversy that followed as to the rightful claimant of the discovery, Dr. Bigelow espoused the cause of Dr. Morton, and by his vigorous arguments contributed largely to the formation of opinion in his favor; the chief point being that the real discoverer was the one who first demonstrated publicly that the inhalation was effectual and safe, whoever else had thought it might be used to cause sleep and annul pain.

The Doctor was for more than twenty years a surgeon to the Mass. General Hospital, and at the same time professor of surgery in Harvard. He was not a fluent talker like Dr. Oliver Wendell Holmes, for instance, but gave much thought and preparation for his lectures, and spared no expense to illustrate them by enlarged paintings of surgical subjects. He was very popular with the students and they had full confidence in him as an operator, feeling that when he took the knife the operation would not fail. Under any and all emergencies he was quiet and self possessed. The writer saw him in difficult and prolonged operations, and under different circumstances, and only once did he ever see the slightest disturbance of his countenance, and that for a moment only; and this was the occasion. The surgeons of the Mass. General Hospital, after consultation, had amputated a man's leg above the knee for a chronic disease of the joint which was enlarged and surrounded by a fluctuating tumor. The amputated leg was brought before the medical class by the professor, and after an explanation of the case he asked one of the students to assist him in opening the joint by holding a dish under the tumor to receive the pus. The cut was made and lo! the whole tumor was soft and very yellow fat. The unexpected had happened, the students knew it and cheered of course. For an instant only the Doctor hesitated, and then went on with his lecture. The joint was thoroughly disorganized, the cartilages destroyed, and the bones necrosed; but they were dry.

# Psychology of Neurasthenia.*

BY JAS. G. KIERNAN, M. D.,

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Neurasthenic psychology varies with the period of attack and the nosologic state when attacked. Psychology in the normal adult attacked by neurasthenia deals essentially with disturbances of the coordination constituting the "ego." The "ego" oscillates between perfect unity, absolute incoordination, and the intermediate degrees, without line of demarcation between normal and abnormal, health and disease, the one trenching upon the other, or else it ceases to be. The "ego" is the cohesion for a given time of clear states of consciousness, accompanied by others less clear and by physiologic states which, though not entering into consciousness, are even more effective than the conscious states.

Certain cortical areas exclusively connected with associating tracts have little if any direct connection with the bodily periphery. Such cortical areas and subsidiary associating tracts, bound into the higher unity of the cerebral hemispheres, constitute the material substratum of the "ego." Dusturbance of the intricate relations involved in this is necessarily accompanied by disturbance of the "ego," or may render an "ego" impossible. On accurate connection of projection areas (passing outward to the periphery) with projection areas, and of these with "abstraction" areas, the faculty of logical corelation depends. Correction of the countless errors made during a lifetime is possible only by inhibitions, exercised by the association fasciculi. Correction with approaching maturity is delegated to the "abstraction" field, whose functions are ordinarily performend in an automatic manner.

Fatigue and other constitutional disturbances break up the associations constituting automatism. The individual then becomes actively conscious of the necessity of controlling conceptions constantly received from sense impressions. The factor assumed to secure balance between associations is termed will or volition. This final act of consciousness results from a complex coordination of states, conscious, subconscious, or unconscious (purely physiologic), finding expression in action or in inhibition. Volition is an effect, not a cause..

Into the subconscious and unconscious factors enter the condition of various organs and the results of training. These last, at first conscious, as in the child's learning to walk, speak, be modest or cleanly, are finally transferred to the subconscious spheres and become automatic. The higher the mental state the greater the transference.

The conscious mental process indicates an imperfection of the cerebral organization and the presence of an unusual activity which deranges the equilibrium, the innate or obviously acquired automatism, and does not find a well formed mechanism ready to discharge it. It is the transitory phase between an inferior and a superior cerebral organization, expressing novelty, incertitude, hesitation, growing astonishment, imperfect association and incomplete organization, slowness and inexactness in transmission, loss of tenure in the phenomena of reaction. The nervous paths are not distinctly enough traced to permit, with out destruction in the final effect, reflex movements or reflex ideational sensations. The degree of the conscious mental process determines the amount of attention. Attention is hence comparatively slight in the ape, hereditarily defective child, and philistine, since the power of new ideas to create states of uncertainty depends on the presence or absence of preformed paths. The balance of the "ego" is disturbed when strains unduly obtrude the unconscious or subconscious upon consciousness.

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*Read in Outline before the Chicago Medical Society.

When the balance of the "ego" is disturbed, primitive instincts rising prominently to the surface take unexpected directions. Excessive spirituality, as Spurgeon years ago pointed out in one of his sermons, is by a strange yet natural law next door to sensuality. Closely connected with salacity is religious excitement, as also is ecstacy. The passion of the religious ecstatic lacks nothing of what makes up sexual love, not even jealousy. The religious and sexual emotional states at the height of their development exhibit a harmony in quantity and quality, and can under certain circumstances act vicariously. This vicarious action has received the name of religiosity.

Under certain circumstances love of pain to self or others is an expression of this vicaration. Algophily (love of pain) of the passive type often finds expression in religious flagellation. Flagellation appeared in epidemic form during the fourteenth and fifteenth centuries, but the sexual element became in these so demonstrably obvious that the church, at first favorable, took severe measures against the epidemic. Another phase of algophily more encountered by physicians is the desire for useless surgical procedures, whether performed by male or female physicians. The gynecologist, as G. Frank Lydston remarks, is compelled to be on his guard against an algophily, little suspected by those surrounding the patient, in which she develops a fondness for gynecologic manipulation. The most frequent expression of this is seeming dysuria. Frequent gynecologic manipulation having exhausted sexual response, surgical manipulations alone are able to secure an orgasm! The bladder is, however, the most delicate esthesiometer in the body. Contraction of the bladder follows on the slightest stimulation of a sensory nerve. All conditions of the organism which raise blood-pressure and excite the respiratory centers produce an immediate measurable effect upon the bladder. When Mosso brought a plethysmograph in contact with a female bladder, even a slight touch on the back of the subjects' hand produced a notable contraction of the bladder. Whenever the subject was spoken to or made the slightest mental exertion there was a similar contraction. These contractions, much more delicate than those of the blood-vessels, cannot be paralleled by any other part. Born claims the bladder is the mirror of the soul; but it would be equally correct to say that to some extent the soul is the mirror of the bladder. The fainter vesical contractions cannot be said to play a recognizable part in emotion, but when they attain a somewhat higher degree of intensity, they play a well recognized part. "A nervous bladder," as Goodell puts it, "is one of the earliest symptoms of a nervous brain." Contraction of the bladder plays a part in the constitution of various emotional states of fear, anxiety, and suspense. Its extreme spasmodic form (urinary incontinence) is very common in children and by no means uncommon in young women (quite apart from pregnancy or the results of pregnancy), though rare in men. This affectability of the bladder interferes to some extent with the employment of women in factories and offices. It underlies the tendency to frequent micturition which occurs in girls employed as stenographers, typewriters, clerks, etc.

Erethismic conditions resultant on such disturbance of the "ego" may produce paradoxic sexual instinct in which sexual frigidity is combined with intense sexual preoccupation. This may become a sexual inversion, in which the patient is drawn temporarily toward friends of the same sex, without consciousness of the sexual origin of the affection for them.

The action of the heart, lungs, or other organs registered in the unconscious phases of the "ego" does not normally form a conscious basis of mental states. Their disturbed action, destroying inhibitions, relegating them to the unconscious, raises them into the subconscious sufficiently to disturb the "ego," thereby creating states of anxiety, doubt, introspection, and their emotional consequences.

These occur at first during sleep at the time of the lowest systemic vitality, producing the distressing dreams which so often precede the phobias and obsessions of neurasthenia. The dream impression is sometimes so vivid that a hypnogogic hallucinatory process remains in consciousness, often forming later a vague delusional or false memory.

Through the rhythmic law of the nervous system, circular neurasthenia, with its alternation of emotional depression and exaltation, often appears without external cause. Suppression of the exaltation phase produces hypomelancholia; of the depression. hypomania.

Disturbances of the automatic inhibitions permit the trivial, the immodest, the occult, and the criminal to rise into consciousness, whence the obsessions and phobias of neurasthenia. Of these there are two classes: the besetting and the impulsive. The first appears in conditions "like the prying tendency into the trivial, or grübelsucht" of the Germans; the last in homicidal, suicidal, nymphomaniac, kleptomaniac, pyromaniac, and allied impulses.

From introspection and subconsciousness of organic disturbance comes the nosophobia of the neurasthenic. Nosophobia is too often brutally regarded as feigned hypochondriasis without reference to its underlying factor. Nosophobia differs from hypochondriasis in being a fear of a disease rather than a belief in its existence; it is hence more terrifying than hypochondriasis.

Nosophobia takes a special direction according as the quack consulted has an alcoholophobiac, pseudoreligious, toxicophobiac, psoric, "sexual purity," testicular, uterine, "canalopath," myopath, osteopath, cylinder, catarrh, kidney, vermicular, or reflex bias. The neurasthenic is peculiarly liable to suggestion, whence the crowds which were "cured by Valentine Greatrakes (in the seventeenth century), as they are "cured" by Mother Eddy now.

Introspection through its numerous morbid resultants rising into consciousness inhibits symbolization, whence neurasthenic logorrhea. This is a word-diarrhea with decided constipation of ideas. Logorrhea is not necessarily abnormal since it often appears during medical discussions. Neurasthenic logorrhea often takes the direction of nagging.

Transitions from the obssession to the delusion, while not frequent, may occur when, by destruction of normal associations, the obsession no longer seems abnormal. Generally when mental breakdown is as complete as this it culminates in acute confusional insanity, the "verwirrheit" of the Germans. Exceptionally typhomania or Bell's disease is produced. Sometimes a prolonged stuporous type results. True stupor may occur from extreme interaction of inhibitions. Neurasthenia in childhood produces casual visual and other hallucinations more frequently than neurasthenia of the adult, because of inability to distinguish between the subjective suggestion and the objective fact.

Neurasthenia between the age of six and twelve, when the first signs of maturity (the permanent teeth) appear, often precipitates the onset of the mental state of puberty and adolescence. In this, religiosity,,undue conscientiousness, undue sexual consciousness, introspection, and nosophobia normally tend to appear.

During puberty and adolescence there is normally a struggle for existence between the cerebral and the reproductive system which tends to obtrude subconscious states upon consciousness.

From this struggle results a fear of the unknown which produces suspicional tendencies and pessimism. Suspicional tendencies and pessimism, with which they are so often associated, arise from states of anxiety resultant on instability of association, dependent on lack or nonuse of association fibers. Pessimism, as Magalhaes has shown, is a state of nervous instability with alterations of irritability and prostration. The subject is supersensitive, ·impressions called forth are intense, and, causing prolonged reactions, are followed by exhaustion. The state is characterized by a generaal hyperesthesia, which naturally results in an excess of suffering. From instability and hyperesthesia result discord between feelings themselves, between the feelings and the intelligence, between the feelings, the ideas, and volitions. Discord between the feelings shows itself in a great variety of paradoxes, contradictions, and inconsistencies. To the pessimist, possession of a desired object does not atone for former privation. Pain or unsatisfied desire is replaced by the pain of ennui. With inability to enjoy what he has are coupled extravagant expectations regarding that which he does not have. He is extremely susceptible both to kindness and contempt. He passes suddenly from irritability to languor, from self-confidence and vanity to extreme self-abasement. This intense sensitiveness results in intellectual instability, since it involves a great vivacity of t he intuitive imagination, which favors the setting up of extravagant ideals lacking in solid representative elements. Hence a gap opens between his ideal and the actual. He can never realize the ideal he pursues, and so his feelings are of a sombre hue. From this excessive realism results a state of doubt, a certain distrust of all rational objective knowledge, expressed in occult fears and belief. It assumes another form in extreme subjectivism. The pessimist is haunted by images of the tiniest religious scruples, suspicions, fears and anxieties resultant in alienation from friends, seclusion, misanthropy. He has an incapacity for prolonged attention, a refractory attention, and a feeble will. These result in inaction, quietism, reverie, self-abnegation, abolition of the personality, annihilation of the will, amounting sometimes even to poetic or religious ecstasy. Pessimism is frequently associated with a morbid fear of death (thanatophobia).

Neurasthenia tinges the mental state of puberty and adolescence with undue egotism, whence the unpleasant obtrusiveness of what is called sexual neurasthenia. This is generally the morbid survival of the adolescent mental state after adolescence. Hebephrenia may result, with its intense vanity, extreme selfishness, religiosity and perverted ethics, aural and visual hallucinations, shallow emotionalism, and violent but controllable impulses.

Lust of the algophiliac type, which seeks satisfaction in pain (whether in cruelty toward others or in self-mutilation), often occurs prematurely between six and twelve or during adolescence. This may arise from congenital deficiency of power to acquire that secondary "ego," best expressed by the Golden Rule, or from that decay of the secondary "ego" which neurasthenia, like other protracted invalidisms, occasions.

Neurasthenia during periods of involution like the climacteric and senility is marked temporarily by the mental characters of the period, followed or not by permanent mental breakdown. Climacteric neurasthenia, whether the climacteric be expressed in man by prostatic change or in woman by the menopause, presents the psychic features of ordinary neurasthenia plus sexo-emotionality. This is likewise true of senile neurasthenia; the miserliness, collectivism, eroticism, etc., of old age may temporarily appear during it.

Neurasthenia in a degenerate (properly speaking, a hereditarily tainted defective) is accompanied by persistent obsessions of the besetting or the impulsive type. In such subjects circular neurasthenia may become periodic and circular insanity. Neurasthenia may precipitate paranoia in hereditarily tainted subjects of seemingly sound mentality. This was the case with a member of the medical profession who, for his contributions to dental science had been made surgeon-dentist to Queen Victoria. During the Lady Flora Hastings controversy, when Queen Victoria charged that that victim of uterine cancer was pregnant, he chivalrously defended the accused, proving he was right by a necropsy. The queen thereupon deprived him of his office. Through resultant intrigues of the court camarilla and its tradesmen sycophants, he lost his practice, fell into neurasthenia, and died a querulous paranoiac.

Neurasthenia resultant on or complicated by phthisis has the suspicional capriciousness of the tuberculous. The same type of mentality occurs with uncompensated cardiac disease.

Neurasthenia produced by alcoholism or accompanied by it has the morbid jealousy, fear of poisoning, and ideas about morbid sexual manipulation which characterize alcoholism.

Neurasthenics who have been exposed to syphilis, or believe they have been, have as the dominant note of their mentality syphilophobia.

Neurasthenia due to sunstroke, traumatism, lightning, or electricity, tends to develop suspicional mental states which very frequently form the basis of a secondary paranoia culminating in paretic dementia from extension of meningitic processes to the cortex. Exceptionally, similar states are produced by the protracted nervous adynamia resultant on typus and allied fevers.

The mental state of most pregnant women is essentially that of mild neurasthenia of the circular type. The so-called "longings" are besetting and impulsive types of obsessions. Phobiaas usually take the type of fear of "marking" the fetus. Pregnancy introduces a new force into woman's organization which disturbs the physiologic balance previously existing, and hence, strictly speaking, so far as the woman is concerned, is a pathologic albeit not a nosologic state.

The psychology of neurasthenia may therefore be regarded as expressing the nature and extent of a disturbance of the normal "ego" due to the influence of nerve tire primarily on the central nervous system; secondarily, through resultant uncontrolled action and its consequences on the nerve systems of the organs.—Medicine.

# Some of the Emergencies of Labor and How to Manage Them.*

BY EDWARD J. WILSON, M. D.

An emergency within the meaning of this paper is any condition suddenly developed in the conduct of labor, whether foreseen or unforeseen, that is critical or perplexing and to correct which requires immediate, almost instant, application of the right measure of treatment. Emergencies in this sense do not arise often; indeed, they are so rare as to be met only at long intervals by those having much to do in this department of medicine. This immunity, however, can be attributed in a large measure to an early recognition and correction of conditions which, if allowed to continue, might give rise to them. If a pregnant woman is habitually excreting a small amount of urine charged with albumin and having a low specific gravity, she presents a condition which if allowed to continue will in many instances lead to a crisis and possibly an emergency, but if she be placed upon appropriate treatment she may escape such crisis. This, of course, is by far the most satisfactory method of managing emergencies. Notwithstanding the employment of the most careful prevention, a crisis will occasionally suddenly arise where it is difficult to decide which one of a number of measures shall be adopted and where the exigency of the case requires that no time be lost; where time is indeed golden and where minutes may literally mean life to the patient. How shall such exigency be met and managed?

First, let it be said, though the statement is scarcely necessary, that no physician ought to assume the responsibility of managing labor unless he is equipped for any emergency that may present itself; under no condition can he have much self-reliance; just as a good equipment of arms imparts courage to a soldier, so will a good equipment of proper appliances give confidence to a physician and strengthen his ability to successfully cope with whatever a case may have in store for him.

It has been said that the unexpected generally happens in obstetric practice; this statement is hardly true; a considerable experience has shown it to be a fallacy; it was probably made and passed on by those who went unprepared. He who is in the habit of going to such cases unequipped and unprepared invites disaster and sooner or later will suffer the humiliation he has brought upon himself, and possibly the remorse that follows the failure to keep a sacred trust, and surely the trust is sacred that a woman commits to a physician when she places her life in his keeping in this important crisis. It is not necessary that an elaborate and expensive outfit shall be obtained,—it may be very simple. At the risk of being a little dogmatic it may be made up of the following: An irrigating bag of a good size; at least five yards of sterile gauze; some clean cotton; a number of catch forceps; a good scissors; catheter, preferably one of glass; a supply of long and short needles, both curved and straight; some tubes of prepared, rather coarse, catgut; some sterile silk worm gut or chromosized cat gut; sterile silk ligating material; an obstetric forceps of some good pattern; chloroform and a supply of clean brushes. This is not an expensive outfit, but it will prove equal to almost all emergencies, and only when a section or other like procedure is required will more be needed and ample time is usually afforded by such cases in which to obtain the additional instruments. This preparation and reasonably good equipment constitutes a most important factor in the management of emergencies. This outfit, however, will be of little use unless it is placed in advance of its being needed in such condition that it can be used and where it can be had at any moment.

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*Read before the Columbus Academy of Medicine.

In the onset of the second stage of labor the forceps, both the catch and obstetric forceps, needles, scissors and catheter, should be boiled and kept in a sterile towel and placed conveniently at hand. The douche bag should be filled with water that is moderately hot and which has previously been boiled, catheter attached to its tube and the bag suspended where it can be used and, if the labor is protracted, the water can be renewed from time to time to keep it hot. In the latter part of the second stage of labor when the perineum has begun to distend, the patient should be placed across the bed with her hips drawn well to its edge and the perineum uncovered so that the physician may be able to watch the distending perineum and be where he can most effectively manage any trouble that may present itself.

No physician should be unmindful of that modesty that is an exalted attribute of every woman, but he should remember the obligation he has taken upon himself to do that which is for her best welfare, and experience has proven that there is no way of knowing his patient's condition so well as by placing her in the position named with the field of operation exposed to view.

Such emergencies as will be considered in this paper will be taken in their order of frequency.

Probably the most frequent emergency, but one unattended with peril to life, though heavily fraught with peril to health and comfort, is none other than a threatened rupture of the perineum, nor is there any other emergency that requires more prompt application of the right measure, if it is to be corrected, than does this same threatened rupture of the perineum. In a slow distending perineum that has expanded to its utmust extent or in a rapid descent of the presenting part upon a perineum that admits of little or no distension, where the part that is presenting is larger than the orifice through which it is to pass even when fully extended, the proposition is much the same; either the size of the presenting part must be reduced or the opening through which it is to pass must be enlarged, all other methods for overcoming this difficulty to the contrary notwithstanding. If the surgeon has the field under his observation it is largely his own fault if a rupture through the perineum takes place. He can by an incision, through the lateral folds of the vulva at about the junction of the lower with the middle third, to an extent of half or three-quarters of an inch, if necessary, on one or both sides through structures that are of no especial importance, make the opening for the presenting part as large as may be needed and thus avert a rent through the important muscles finding their attachment in the perineum. This incision must be made at the right time, and the necessity that determines it really constitutes an emergency of no mean proportion. This is the only method that is effective and safe, and which will surely prevent a laceration of the perineum, that is at all times at the command of the physician. The divided parts can readily be brought together with a running suture and will heal promptly.

The next most frequent emergency, and one that is by far more important, more sudden and more appalling than anything else in medicine, is that which is caused by hemorrhage; and especially is this true of post partum hemorrhage as well as that kind known as unavoidable hemorrhage. The likelihood of a hemorrhage occurring after labor can sometimes be foretold, as where the uterus is suddenly emptied after a long protracted labor, or when the uterus has been over-distended as in hydramnios, both of these resulting in a tiring or exhaustion of the muscle fibres that destroys for a time their contractile power, thus leaving the uterus flaccid and the mouths of its sinuses wide open for the free escape of blood. In these instances, as in all other conditions leading to the development of an emergency, preventive treatment is all important. indeed, is the most important, but this paper has to do only with the emergency; and the causes which favor their development as well as the measures which may be employed for their prevention, do not come within its domain.

All hemorrhages occurring immediately after labor are due to practically the same cause, a uterus that is unable to contract; the contractility may be temporarily destroyed in the manner already described. or perhaps it is better to say that the reflex irritability of the muscle has for the time been destroyed; or the uterus is prevented from contracting by mechanical causes. as when a fibroid occupies its walls, making contraction imperfect or impossible, or when a polypus or detached placenta occupies its cavity, thus acting as any other foreign body in preventing a close approximation of its walls; in effect the immediate cause of the hemorrhage is the same, sinuses that cannot be closed. A hemorrhage occurring immediately after labor is sudden in its onset and increases in volume in a kind of arithmetical progression with each moment's delay in obtaining control of it. One other fact in this connection worth remembering is that the difficulty encountered in obtaining control of the hemorrhage increases with about the same rapidity.

Given a case of such hemorrhage where mechanical interference with the contraction of the uterus can be excluded. What is to be done? Manifestly anything that is to be most effective must be done speedily. In conditions of ordinary atony employ at once some excitant of reflex irritability, and you have one at hand and one of the most efficient, indeed you have provided it for just this exigency, that is the douche bag full of hot water. Make sure that the cavity of the uterus is free of clots; then carry the glass catheter well up to the fundus; or if the rubber tube is clean, and it should be, it may be employed without the catheter as it will throw a larger stream of water. Combine this with friction or kneading of the uterus, which can be done with the left hand, perhaps alternately compressing and kneading the uterus, and in most instances the uterus will respond to the excitant and contract. However, in cases of great exhaustion or in profound chloroform narcosis the physician should not rely upon these measures for the reflex irritability has been so far destroyed that time will probably be required for its restoration. In either of these conditions lose no time in the use of the hot water or other measures employed to excite reflex contraction. You have the jar containing five yards of sterile gauze right at hand; carry that gauze into the cavity of the uterus; be sure that the gauze is carried well up to the fundus and pack the uterus firm and hard with the gauze. You will have enough in the amount that has been provided. Any other measure for the control of the hemorrhage in this particular exigency will prove disappointing and disastrous. Remember time is an important factor and temporizing measures ought not to be undertaken. Do first that which promises to do the most and do it at once.

In post partum hemorrhage caused by the presence of growths that prevent the contraction of the uterus, the employment of measures calculated to excite reflex irritability are of course worse than useless. The only thing to do in these instances is to meet these cases with mechanical measures for the arrest of hemorrhage. Pack the uterus hard and firm with the gauze and do it first and speedily. To place any reliance in any of the conditions I have described upon such remedies as ergot, whether given by the mouth or by hyperdermic injection, would be about as effective as hypnotism and should not be employed or considered.

Unavoidable hemorrhage, or that which is caused by placenta previa, rarely occurs in a dangerous degree without warning of such danger being given; in other words, the first hemorrhage is rarely so violent as to endanger life, though occasionally the first hemorrhage threatens to be fatal. What is to be done? If a primipara with an undilated and undilatable os, do not wait to cleanse your patient if hemorrhage is alarming, but with all possible haste pack the cervix and os with clean gauze as firmly as possible, and to hold this in place and afford it support, in like manner firmly pack the vagina. Do not leave your patient but wait until dilation of the os has taken place, which will be accelerated by the packing you have placed within it, and should hemorrhage begin again while the os is yet too small to admit of delivery or is yet undilatable, repack and wait. Your duty, however, is still at the bedside of your patient until delivery has been accomplished and the hemorrhage arrested. If a multipara with a soft distensible cervix, rapidly dilate. Make an opening through the placenta if it is a central implantation; carry the hand up through the amniotic membrane and grasp a foot and as carefully, though as rapidly as possible, bring it down through the cervix until it acts as a secure wedge in the vaginal canal; throw a fillet around it so that moderate traction may be maintained until the expelling force of the uterus makes it safe to discontinue such traction. One should not rely in this case when the head is presenting, upon the head being driven down upon the placenta and overcoming the hemorrhage by pressure, for in all instances where rapid hemorrhage is taking place the contractile power of the uterus is impaired or destroyed.

There is still another kind of hemorrhage, known as accidental, that at long intervals may cause an emergency. This is the kind that is caused by detachment of the placenta previous to the expulsion of the child. There may not be any external signs of its occurrence. The physician will have to rely upon the usual signs of an internal hemorrhage, evidences of collapse with rapid pulse. It would seem that the only feasible way of meeting such an emergency would be by rapidly emptying the uterus and, if collapse is imminent, pack its cavity with gauze and adopt restoratives.

An annoying and trying condition approaching the conditions of an emergency may be met in the management of feet presentation. This, however, is an emergency not fraught with much danger to the life of the mother but threatening with great peril the life of the unborn babe when the after coming head is retained in the pelvic canal. This retention may be due to one of two causes: The head may be held by an imperfectly dilated os acting as a constriction ring about the neck of the babe or an arm becomes extended and wedged between the occiput and the symphysis. What is to be done? In the first instance apply speedily the forceps to the after coming head if the constriction ring will admit of its application. If it will not, instantly incise the ring with the scissors and extract with or without the forceps. In the latter condition, if the arm is detained behind the pubis and the occiput is driven aganst it, when the discovery is made before much traction is employed, the head can be rotated back until the arm is released; but, if this is not possible, the only thing to do is to make forcible traction upon the arm, even at the risk of breaking it, and deliver.

Finally: A woman about the third day after labor suddenly develops a chill. During the preceding forty-eight hours she has been restless with a rapid pulse and a nervous, apprehensive condition of mind. Here is another exigency amounting to almost an emergency, and it is important that the right thing be done and that promptly. What is the trouble? Infection has taken place and an announcement of this fact is found in the chill. The measure that promises most for this woman is prompt and early irrigation, not of the vaginal canal, but of the uterine cavity and plenty of boiled water to which may be added formaline in the strength of 1 to 5,000, or 2 per cent. of creolin. No other antiseptic compares in efficiency with the formaline. Frequent and long continued irrigation of the whole genital tract promises most for this woman.

In conclusion: He who is watchful of his patient during her pregnancy as well as in her labor, who has a proper sense of the obligation he owes her to protect her from every possible danger and bring to her aid all that modern medicine has placed in his hands, will have the satisfaction of meeting with few emergencies and the peace of mind that follows the discharge of a duty well done.—Columbus Medical Journal.

# Medical Miscellany.

THE PERILOUS ADVENTURE OF AN OLD MEDICAL BOOK. The problem of what becomes of all the old books has had a curious light thrown on it by a recent occurrence in philadelphia. In a large paper mill in this city a great pile of waste paper was being passed into a machine in order to be reduced to pulp. One of the proprietors, who happened to be standing by, saw a rather dilapidated old book on the heap, and picking it up observed that it was a Latin work on surgery. Thinking it might be of value, he rescued the old tome and brought it to the editor. It proved to be a copy of the second edition of the Latin translation of the complete works of Ambrose Pare. The title page was unfortunately torn out and the old vellum binding had been torn off, but otherwise the book was in excellent preservation. It was published at Frankfort, in 1594, and its full title (which we have verified by comparing the book with the copy in the Library of the College of Physicians) is: "Opera Chirurgica Ambroisii Paraei * * * A Docto Viro, plerisque locis recognita et latinitate donata, Jocobii Guillemeau, Francofurti, MDXCIIII."

The first edition of Pare's collected works was in French, published in 1575 at Paris. There were at least twelve editions issued in the original French up to 1664, besides the editions in Latin, German, Dutch and English. The copy thus rescued from the maw of the paper machine cannot be considered extremely rare, but it is at least too venerable and too valuable a book to be ground up into bits. The query now arises, how did this aged book (more than three centuries old) find its way into a Philadelphia paper mill? Is this another case of imperial Caesar dead and turned to clay? Has Ambroise Pare so fallen from his high estate that his venerable relics are to be converted into a few cent's worth of pulp? Think of it. Three hundred years of dignified Latinity sacrificed to make a piece of modern blank paper!—Philadelphia Medical Journal.

THE LATEST FASHION IN SUPERSTITION is reading of the fate in the soles of the feet, which is said to be crowding out palmistry. The new science may be appropriately called sole-solecism.—New York Medical Record.

THE HEALTH OF THE SULTAN OF TURKEY. A curious psychological study of the Sultan, Abdul-Hamid II, is presented in a recent work by George Dorys. The author, who seems to have had unusual opportunities for studying his subject, describes the Padishaw as a chronic neurasthenic; one, indeed, who has advanced into a state of monomania; a victim of the delirium of power, suffering from that type of mental perversion which is known by the French as the "Persecuting-persecuted." According to Dorys, the Sultan's mental and nervous state is due entirely to his environment, which is a curious medley of grandeus and slavery, autocracy and superstition, luxury and squalor, imperious sway and grovelling ignorance. The political and social conditions which surround the present Caliph are perhaps unprecedented; while they have some things in them to suggest the imperialism of ancient Rome and the oriental glamour of mediaeval Baghdad, they are on the whole a mere relic of barbarism—an anachronism and a sort of vaudeville, kept going not by any internal vitality, but by the mere jealousy of the European powers. When and how soon some stupendous crash may come cannot be foretold—but the mere uncertainty, and the strain of trying to be Sultan, have told sadly on the nerves of Abdul Hamid. He lives in a state of nervous tension in which the fear of assassination is the great motive power of his life and of his policy. He dies a thousand deaths in trying to avoid one. Dorys says that the haunted potentate has even studied the latest of all the sciences—bacteriology—and as a consequence has become a sort of mysophobiac. In everything he sees a germ, and magnifies its power for evil beyond even the speculation of modern pathology. A new name has even to be invented for the mental disease of the imperial paranoiac, and he is said to suffer from "microbiophobia."

It is worth while to recall that the Sultan's brother and immediate predecessor (who is still living) is insane, and that the Sultan inherits a tendency to phthisis from both his father and his mother. Considering the unhygienic surroundings and peculiar personal habits which are supposed to exert their influences on every Sultan, it is perhaps remarkable that the house of Osman has continued in direct descent for more than six hundred years.—Philadelphia Medical Journal.

"PRATT'S JOURNAL — EXITUS LETHALIS." The Journal of Orificial Surgery expired with the June issue. This Journal has been the mouthpiece of the surgical aspect of homeopathy in the United States, and during the nine years of its existence has added much to the gaiety of medical literature.

Primarily, homeopathy was a mild system of medical delusion,. based on expectancy; it is not what it was, and its disciples do not know what it is. But with the advent of the new pathology;

with surgical anesthesia and asepsis, the more gifted and aspiring apostles of Hahnemann sought a surgical outlet, and oddly enough seized upon the outlets of the alimentary, the respiratory and the genitourinary systems. In brief, they became orificialists; that is, Prattists. The fad spread until, once on the table, the victims of the "orificial philosophy" were not removed until "all-round-orificial surgery" had been accomplished.

Such rape 'was never done upon the human body; the rectum was dilated, "pockets" removed, the meatus urinarius dilated to finger-size, and the hood of the clitoris split open. Volumes have been written upon this last procedure, which was heralded as the final touch in the creation of the new woman.

Dr. Pratt writes in detail of a woman, moribund from the long anesthesia required for the 'all-round,' whom he restored to life by making a laparotomy, and lifting the uterus from the underlying plexus.

"There was an immediate flock of disciples at the heels of this necromancer from all schools and no schools, but mainly homeopaths. As orificial surgeons they could compete with the scientific surgeons in their localities. They were open to any new fad, for the capacity to be a dupe in one field shows a mind and nature open to all. Dr. Pratt himself attended the Missouri School of Osteopathy, and adopted and defended the system. The derelicts of other sectarian schools gathered under his roof-tree. Even the innocent-minded secretary of the Indiana State Board of Registration and Examination, holding his office by virtue of his alliance with the Eclectic School of Indiana, took part in the meetings of the Homeo-Pratt Association, and was honored by the presidency of the American association of Orificial Surgons at a recent meeting in Chicago, the Mecca of orificialism.

"The new school was essentially Western and patriotic. Johnson says patriotism is the last refuge of the scoundrel, and it certainly is a frequent buttress of delusion. All was 'American.' Whitehead's operation for piles, which has become ancient history to modern proctologists, was heralded by Dr. Pratt as the 'American operation.' It has left a legacy to the present generation of rectal ectropion, incontinence of feces and gases, and life-long misery.

"Indeed nothing would be more interesting or more pathetic than the morbidity and mortality statistics of the half-baked surgical fledglings who have taken their certificates of a two-week's course in Dr. Pratt's annual class in orificial surgery, and set themselves up from San Francisco to Brooklyn as converts to the 'orificial system.' Not surgical lessons alone, but all diseases were to be cured by the attention to the rectum, the meatus and the clitoris. Then came a certain crop of infection and failure, death and disaster, and, of course, reaction. The reaction is shown in the present humility of the orificialists, the abandonment of their sanitariums, and the refusal to support any longer Dr. Pratt and his journal.

"The story of failure spreads over a large community and disaffection follows.

"The report is current of two sisters from a nearby Indiana town who visited the World's Fair at Chicago. One of them was advised by her homeopathic physician to be 'resystematized by orificial surgery'—nothing serious, but a good opportunity to have Nature's work perfected. She visited and was treated—bnt how about her sister. Like begets like, and her sister had better be examined. Yes; some 'orificial conditions' pending, and danger imminent. Result: 'All-round orificial surgery,' and both sisters returned to their homes, riding in the baggage car, hands over breast, feet foremost. The two sisters had taken the advise given by Dr. Pratt in his answer to the question, page 591 of the lethal issue, 'To what cases is orificial surgery applicable?'

" 'When other helpers fail and comforts flee,
Then take a whirl at orificial surgery.'

"Dr. Pratt assures us that the Journal is stopped because the overwhelming 'orificial idea' requires a text-book, and he is ordained to write it. 'It is only books that last and get into libraries and the Journal must be sacrificed to the book.' 'Indeed,' he continues, 'the Journal has resulted in two books destined to be of great use to humanity.' Of course, Dr. Pratt is the author. One of these is the "Composite Man.' —the bony, the muscular, the arterial, the venous, the lymphatic, the skin, the cerebrospinal, the tubular, the sympathetic, the organic, the conscious, the sub-conscious, and, finally, the connective-tissue man. The latter cements these various personations into "The Composite Man,"'God's Second Creation, revised and corrected, with special improvements upon his orifices suggested by Dr. E. H. Pratt.

The second book, which justifies the Journal's existence, is made up of Dr. Pratt's editorials containing all that he has written on the "Action of Mind Over Matter in the Care of the Chronically Sick." Some of us have seen these sermons. They are good to pass around to the laity half-preacher, half-doctor. They are neither fish, flesh or fowl, nor yet good red herring.

Ever present in the writings of Dr. Pratt is that vanity and self-consciousness which destroys their power and value. Dr. Pratt is introspective, while medical science is notably objective. He is constantly listening to himself, and no doubt hears inward voices. He is a pathetic figure, and deserves sympathy rather than scorn. Graduating from a sectarian school nearly thirty years ago, he lacked the courage and foresight, when he got into practice and his eyes were opened, to renounce his phantasy and ally himself with progressive medicine. Other men in Chicago have made the same mistake in going through homeopathic colleges, but when they were up against the real thing and found there was no sect in science, they retrieved themselves, revised and completed their educations, and have received high honors from their fellows. But Dr. Pratt threw himself into the storm and stress of the new pathology and surgery, retaining his old weapons and sectarian notions. He might have had easy sailing fifty years ago, but not in the last twenty years. He has made the fight, and he has failed, as all must fail who will not or cannot "give up pretending to believe that for which there is no evidence."

When Dr. Pratt entered the field, homeopathy had no distinctive surgical fad; it has no surgery now. He attempted to create a surgical system for the sect, and engendered the monstrosity of "orificial surgery." He has licked it into such semblance of the realty as it possesses, and for twenty years has posed as its wet nurse and fostering mother.

We now find Dr. Pratt engaged in the last solemn rites of embalming and preserving the effigy, hopeful that in the future the relics may be found in musty archives, and form a part of the vast museum which illustrates the phantasies of aberrant intellect, chasing the will o' the wisp and losing sight of the real sun. —Indiana Medical Journal.

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## DOCTOR J. G. HOLLAND TO HIS DOG "BLANCO."

I look into your great brown eyes,
Where love and loyal homage shine,
And wonder where the difference lies
Between your soul and mine!

For all of good that I have found,
Within myself or human kind,
Hath royally informed and crowned
Your gentle heart and mind.

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Ah, Blanco! did I worship God
As truly as you worship me,
Or follow where my Master trod
With your humility,

Did I as fondly at His feet,
As you, dear Blanco, sit at mine,
And watch Him with a love as sweet,
My life would grow divine!

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**AGES AT WHICH DIFFERENT DISEASES STOP THE HUMAN MACHINE.** From the records of a prominent insurance company of New York City the Insurance Press has drawn quite an array of conclusions as regards the ages when the several common diseases will carry off their victims. "If a person is to die of consumption," says the Insurance Press, "the records of this company show the chances are about 6 to 4 that he will die under the age of forty-five. Deaths from consumption are divided as follows, by ages: Under forty-five, 59 per cent; forty-five to sixty, 29 per cent; above sixty, 12 per cent.

"If a person is to die of other general diseases, smallpox, measles, diphtheria, erysipelas, cancer, diabetes, etc. (which cause in the aggregate nearly one-eighth of all the deaths) the chances that he will die under age forty-five, between forty-five and sixty or above sixty, do not differ widely. Thirty per cent of the deaths from these diseases occur under age forty-five, 36 per cent between forty-five and sixty, and 34 per cent above sixty.

"If a person is to die of apoplexy, softening of the brain, paralysis, etc., the chances are 55 to 45 that he will live to be sixty or more. Only 12 per cent of the deaths from these diseases occur under forty-five years; 33 per cent occur between ages forty-five and sixty; 55 per cent occur above age sixty.

"If a person is to die from some other nervous disease besides apoplexy, paralysis, etc., he will probably pass away before he is sixty. Thirty-five per cent of the deaths from these causes take place under age forty-five; 38 per cent between ages forty-five and sixty; 27 per cent above age sixty.

"If a person is to die of heart disease the chances are 56 to 44 tnat his heart will perform its allotted task until he is sixty. Thus he may expect to live to become gray-headed or bald-headed. Not more than 11 per cent of the deaths from heart disease occur under age forty-five; 33 per cent between forty-five and sixty; 56 per cent above sixty.

"If a person is to die of pneumonia the chances are 64 to 36 that he will not reach sixty. Twenty-nine per cent of the deaths from pneumonia occur under forty-five; 35 per cent between forty-five and sixty, and 36 per cent above sixty. Other respiratory diseases, such as bronchitis, pleurisy, etc., grant a little longer lease of iife. From such causes the deaths under fortyfive are 24 per cent; between forty-five and sixty, 30 per cent; above sixty .46 per cent .

"If a person is to die of some derangement of the digestive system the chances are more than 2 to 1 that he will not live to be sixty. Thirty per cent of the deaths from diseases of this class occur under age forty-five; 38 per cent between ages forty-five and sixty, and 32 per cent above age sixty.

"If a person is to die of Bright's disease he has a fair chance of reaching sixty. Only 16 in 100 of the victims of Bright's disease die under forty-five; 37 in 100 die between forty-five and sixty; the remaining 47 per cent die after completing three score years. Other complaints, classified as genito-urinary, are old-age diseases, 77 per cent of the deaths from such causes occurring at ages above sixty.

"If a person is to die from accidental or violent causes the chances are 86 to 14 that he will not see sixty. Fifty per cent of the deaths from violent causes occur under forty-five.

"If a person is to die from some obscure, ill-defined or unclassified disease, he has 62 chances in 100 of reaching sixty. Human bodies that have been subjected to the wear and tear of three score years or more are most subject to the kind of break-downs that puzzle the doctors.

"If a person is to die of typhoid fever his summons will probably come before he reaches forty-five. Fully 68 per cent of the typhoid feyer deaths occur under forty-five; another 23 per cent between ages forty-five and sixty, the remaining 9 per cent at higher ages."

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A CONFERENCE OF SANITARIANS. By request of Dr. H. M. Bracken, secretary of the Minnesota State Board of Health, we call attention to a meeting of sanitarians "on the University campus, Minneapolis, January 14th."

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NICHOLAS SENN PRIZE MEDAL. The committee on the Senn Medal beg leave to call attention to the following conditions governing the competition for this medal for 1902:

1. A gold medal of suitable design is to be conferred upon the member of the American Medical Association who shall present the best essay upon some surgical subject.

2. This medal will be known as the Nicholas Senn Prize Medal.

3. The award will be made under the following conditions: a. The name of the author of each competing essay shall be

enclosed in a sealed envelope bearing a suitable motto or device, the essay itself bearing the same motto or device. The title ot the successful essay and the motto or device is to be read at the meeting at which the award is made, and the corresponding envelope to be then and there opened and the name of the successful author announced. b. All successful essays become the property of the Association. c. The medal shall be conferred and honorable mention made of the two other essays considered worthy of this distinction, at a general meeting of the Association. d. The competition is to be confined to those who at the time of entering the competition, as well as at the time of conferring the medal, shall be members of the American Medical Association. e. The competition for the medal will be closed three months before the next annual meeting of the American Medical Asociation, and no essays will be received after March 1, 1902.

Communications may be addressed to any member of the committee, consisting of the following: Dr. Herbert L. Burrell, 22 Newbury Street, Boston, Mass.; Dr. Edward Martin, 415 S. 15th Street, Philadelphia, Pa.; Dr. Charles H. Mayo, Rochester, Minn.

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A CALIFORNIA PHYSICIAN who discovered a new disease—love madness—has been experimenting with the person afflicted therewith and has produced the "love parasite," or bacillus micrococcus. This he cultivated up to the twentieth generation, and with the parasites of that generation he inoculated a number of subjects. The inoculation was invariably successful, symptoms of the disease appearing a very short time after the operation. A bachelor, aged 50, on the first day after the inoculation, had his whiskers dyed, ordered a new suit of clothes and a set of false teeth, bought a top buggy, a bottle of hair restorer, a diamond ring and a guitar, and began reading Byron's poems.

The inoculation produced symptoms of the same nature in a young lady of 45. She spent $5 at a drug store for cosmetics, bought a lot of new hair, and a croquet set; sang "Empty Is the Cradle," sent out invitations for a party, and complained that the Chico young men do not go into society. An inoculated youth of 17, employed in a country store, did up a gallon of molasses in a paper bag, and also, in a fit of absent-mindedness, put the cat in a butter tub and threw some fresh butter out of the window. Finally, he sat in a basket of eggs while looking at the photograph of a pretty girl, and was discharged for his carelessness. The Chico doctor is still experimenting, and will soon lay the result of his observations before the medical world.—The Doctor.

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MEDICAL SOCIETY OF THE MISSOURI VALLEY. The fourteenth annual session of this society convened in St. Joseph, on Thursday, September 19th, President Treynor in the chair. After passing resolutions on the death of the President, the society adjourned to allow its members to attend the McKinley memorial services. On Thursday evening the society boarded a special train of Pullman sleepers for Eureka Springs, Ark., where the annual outing occurred, and the regular program carried over from St. Joseph was presented: Address of welcome, Hon. W. M. Brown, mayor of Eureka Springs; address on behalf of local profession, Dr. J. B. Bolton; response on behalf of the M. S. W. V., Dr. V. L. Treynor, president; Dr. Palmer Findley, Chicago, "An Exhibition of Specimens, Illustrating the Cause of Uterine Hemorrhage;" Dr. E. S. Pettyjohn, Chicago, "The Unreliability of Children's Testimony;" Dr. S. Grover Burnett, Kansas City, "Effects of 190 Degrees F. Temperature on Man; the Cell Lesion; a Case;" Dr. H. D. Jerowitz, Kansas City, "Scarlet Fever;" Dr. Chas. E. Davis, Eureka Springs, "Some Twentieth Century Thoughts in Medicine;" Dr. Wm. Jepson, Sioux City, "It is Rational to Operate upon Every Case of Appendicitis as Soon as Recognized;" Dr. Le Roy Crummer, Omaha, "The Use of Gartner's Tonometer, with Demonstration of the Instrument;" Dr. Charles Geiger, St. Joseph, "Syphilis;" Dr. P. I. Leonard, St. Joseph, "Some Aspects of Syphilis." On Friday evening a reception and ball was tendered the visitors by the local profession and citizens of

Eureka Springs, and Saturday was devoted to sight-seeing in the mountains, several tallyho coaches and sixty saddle horses being provided for the purpose. After a sumptuous dinner on Saturday evening the members left for the return trip, arriving in St. Joseph on Sunday morning. Following is a list of officers elected for the year: President, R. E. Moore, Omaha; first vice president, A. D. Wilkinson, Lincoln; second vice president, M. F. Weymann, St. Joseph; treasurer, Donald Macrae, Council Bluffs; secretary, Charles Wood Fassett, St. Joseph. Semi-annual meeting will be held in Lincoln in March, 1902.

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**MERCURY—ITS ACTION UPON THE SYSTEM.** In an extensive article on the action of mercury upon the human system, Dr. William Henry Porter, in the Post-Graduate for September, 1901, sums up the principal actions of the mercurials as follows:

"1. Stimulant to the hepatic cells.

"2. Cholagogue in action by virtue of exciting hyper-secretion of the bile acids.

"3. Sedative due to the two previous actions.

"4. That its alterative, antiphlogistic, antisyphilistic, diuretic actions, etc., are secondary to the above actions.

"5. That pyalism from mercury is due to the inactivity of the hepatic cells, and to the salivary glands attempting to do what should have been done by the hepatic cells."

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**TREATMENT OF FRACTURE OF THE SHAFT OF THE FEMUR.** That no one method of treatment of fracture of the shaft of the femur is suited to all cases is recognized by Dr. H. P. Coile in his article on the above topic in the Charlotte Medical Journal for October, 1901, but the following points are emphasized:

"First: That plaster of paris furnishes a suitable and efficient dressing for a large number of cases of fracture of the femur whether simple, compound or compound and comminuted.

"Second: That it is best applied while the patient is under complete anesthesia, extention being made until the plaster becomes firm.

"Third: The dressing thus applied affords perfect support to the fractured bone and obviates the necessity of other means of extension.

"Fourth: It should not be removed until complete union has taken place.

"Fifth: Its perfect fit to the atrophying limb is best secured by sawing out as required from time to time longitudinal sections of the cast, and drawing the edges together, firmly, securing same with adhesive plaster."

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**THE CONSERVATIVE SURGICAL TREATMENT OF APPENDICITIS.** "Does operative intervention prolong life, health, and usefulness," asks Dr. W. E. Fitch, in an article on the above topic in the Virginia Medical Semi-Monthly. The Doctor answers the question in the affirmative, and adds the following question: "What, then, are the indications for chirurgical treatment?" These indications are summed up thus:

"I. In all cases when severe symptoms come on suddenly, either at the beginning or during the course of the disease.

"II. When, in a mild case, the symptoms gradually increase in intensity to the end of the second day.

"III. Patients in whom radical measures are undertaken sufficiently early in the attack (before the end of the first twenty-four hours) to give uniform assurance that the infection is confined to the appendix, and to those especially who, having been treated medicinally, with recovery, are consequently the more liable to a recurrence.

"IV. Cases which hold out reasonable hope that the appendix can be removed with safety, although infection has passed beyond that organ. This condition arises about the end of the third or beginning of the fourth day.

"V. Cases in which the question simply resolves itself into that of opening an abscess formed in a mass of adhesions, which condition usually occurs at the end of the fifth day.

"VI. When, with abdominal distension, a pulse of 120 or over, diffusion of pain, and other evidences of general peritonitis come on at any time during the course of the disease."

MAGNETIC SURGERY. Bits of iron have frequently been drawn from the eye by powerful eletromagnets. A more difficult surgical feat of the same kind was recently performed by Dr. Garvel, of Lyons, France, on a two-year-old child from Buenos Ayres, South America, who had swallow a nail 2.5 inches long. After a short time the child came near to suffocating, but finally by the next day all respiratory trouble had disappeared and it was supposed that the nail had passed through the digestive tract; but while on a visit to France, the child commenced to cough desperately, and it was thought to be afflicted with chronic bronchitis, and trouble in breathing was found to come from the right side. After having heard the history of the child, Dr. Garvel thought the nail miqht be in the bronchial tubes. He made a radiographic examination of the child, and it was found that the nail had lodged in the right bronchial tube. There was no hesitation in selecting a method to extract it. Tracheotomy was resorted to under an anesthetic, and then an electromagnet was inserted through the opening and pushed down into the trachea as far as possible. The nail was immediate drawn from the bottom of the bronchial tube and became attached to the magnet. . . . Sev- days afterward a Bordeaux physician learned of this curious operation and performed a similar one on a three-year-old child who was supposed to have swallowed a nail. By following the same methods he succeeded in drawing out the nail, which had become fixed in the left bronchial tube for a year.—"Electricity."

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QUININE. There is no drug used so extensively in every part of the world as quinine. It is generally known that the cinchona was first discovered in South America and utilized by the Spaniards, and for a time the supply of quinine came from that country. It is not generally known even now that most of the present supply in quinine comes from Java, where the cinchona tree is not indigenous and was introduced after many failures and with infinite tact and patience by the Dutch government. The British Government supplies its army and navy hospitals from its own plantations in the Himalaya mountains.

In Java the quinine forests are planted in clearings in the jungle and are kept as free from weeds as a flower garden in this country. When a tree is six years old it is cut down and a new slip planted alongside of its roots, so that the quinine supply is never diminished. The bark is stripped from the trunk by Javenese women. They cut it into short lengths and dry it, first in the sun and later in ovens. The dry bark is then put through a crude mill, which cuts it into small bits. These are shipped in bags to Amsterdam or Bandoeng, the center of the quinine industry in Java.

At the factory the bark is mixed with an alkaloid and ground again. It is then pumped into immense tanks filled with hot crude petroleum, which dissolves the alkaloid from the bark. The oil in turn is washed out with sulphuric acid to remove the alkaloid, and the crude quinine srystallizes when it is cooled. The crystals are then placed in trays to dry. In one hundred-pound cans the finished quinine is now ready for the market.—Med. Times.

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LONGEVITY OF VARIOUS RACES. It has often been remarked that while nothing is so uncertain as the duration of any given human life, nothing is more certain than the aggregate of years which may be assigned to a group of one hundred persons or more at any particular age. The expectation of life at a given age, to use the actuarial phrase, differs considerably, as might be expected, in different countries, and Englishmen may be surprised to learn that they are not the longest living among the white races. At the age of 20 and Englishman in average health may expect to live forty-two years, and any life office will grant him a policy based on that probability. The American's expectation is for a slightly longer period. On the other hand, a German lad of 20 can count upon little more than thirty-nine years and a half. It would seem, therefore, that the restlessness attributed to the American temperament does not necessarily conduce to the shortening of life, nor the composure of the German to its prolongation. Possibly the better feeding and clothing of Americans in the lower classes of the population is the principal cause of their greater longevity. Their position is, at any rate, maintained in later as well as in earlier years. The American who has reached 60 may look to complete fourteen years more, while the Britisher's expectation is only about thirteen years and ten months, and the Germans, as near as possible twelve months less. Both at 20 and at 60 the Frenchman's prospect is a little better than the German's and a little worse than the Englishman's.—London Globe.

## THE MECHANISM OF IMMUNITY

The "side chain theory" of Ehrlich has been recently elaborated so that it has become one of the important theories of modern medical science. It certainly explains immunity better than any other theory that has been offered.

The theory presupposes that the toxin or poison of the pathogenic bacteria, and toxins of animals and plants, has two elements, one representing the poisonous quality, the other a combining power. The former he termed the toxophore, the latter is called the haptophore. The former element may undergo variations without affecting the latter.

When such a toxin finds entrance to the circulation, it fixes itself to certain tissue cells by the haptophores. The poison thus anchored is enabled to destrop or effect the cell by the toxophore. A destruction of the chains to which the cell is attached occurs, and the cell regerates other side chains or binding links. Under the stimulation of the toxin these side chains are formed in excessive amounts, are broken off, and, reaching the circulation, form the antitoxin, leaving power to fix and neutralize the toxin, in that a toxin having its haptophore satisfied cannot fix itself to a cell.

Erlich and Morgenroth (Berlin Klin. Wochenschrift, 1901), in a recent article, considers the nature of hemolysis, which have the power of dissolving the red blood-corpuscles. These hemolysis are formed in the same way as antitoxins. The blood of one animal injected into another acts more or less as a toxic body. Soon a substance appears in the blood which has the power to dissolve the red blood corpuscles of the blood injected.

The process of the formation of hemolysis is analogous to that of antitoxin formation.

They find that there are two substances formed in immunity, an immune body, called the recepter, and the complement. The receptor unites the complement to the red blood corpuscles, and thus solution is brought about.

But the quality of the receptor and complement varies in different animals under different conditions, and thus the solution may be more or less imperfect.

The solution of bacteria is brought about in a similar manner.

They conclude that it is well to immunize animals by using a number of different species of bacteria.—Med. Adviser.

## THE INFLUENCE OF SMOKING IN THE CAUSATION OF EPITHELIOMA OF THE TONGUE.

The question of the influence of smoking in the production of epithelioma of the lip has often been raised, and there is a general belief among surgeons that the use of tobacco is an important factor. Carcinoma of the tongue is fortunately a much rarer disease and the influence of smoking in its production has not been frequently considered. In his latest edition of "Diseases of the Tongue," Henry T. Butlin states that he feels justified in speaking much more strongly on this subject than he ventured to do some years ago at the time of the appearance of the former edition of his work. He believes that smoking is a decided factor in the causation of cancer, not so much directly as indirectly, rather by producing or tending to produce these conditions of the surface of the tongue which predispose carcinoma than by immediately leading to the development of carcinoma in such tongues. He states that he does not rely so much on the statistics in support of this view as his personal experience with individual sufferers with precancerous conditions of the tongue and actual carcinoma. Thus Whitehead found only 61 smokers among 104 persons suffering from carcinoma of the tongue, which seemed almost a small proportion, but the common history which we receive of much smoking, the great frequency with which carcinoma of the tongue is preceeded by chronic inflammation of the surface of the tongue which has occurred in smokers and has been maintained by smoking and the greater liability of males to the disease than females, leads to this view. Further confirmation of this belief is found in the fact that up to the present century but little attention was paid to the disease of the tongue. The introduction of tobacco in Europe at the end of the Middle Ages is thought to have had a great influence in the production of this disease.

Whatever influence tobacco may have in the production of carcinoma of the lip or tongue, it is exceedingly improbable that this fact will have much influence in preventing the habit of smoking. But, as Butlin suggests, it is probably more the irritation than any specific injurious quality in the tobacco itself. Hence smokers who would be wise should avoid the use of the stronger grades of tobacco, those forms of tobacco which to give aroma are mixed with various chemical and other substances which may be irritating, and the use of short stemmed pipes, and they should discontinue smoking the stubs of their cigars and cigarettes until they burn their lips and tongue. Those who have sufficient belief in the influence of tobacco as a specific factor in producing carcinoma can hardly have any other resort than to discontinue the habit.—American Medicine.

### OXYGEN AN ANTIDOTE FOR POISON.

A dispatch from Berlin says: The discovery that pure oxygen is an antidote for many poisons is the startling result of experiments now in progress in the Berlin institute of physical diagnosis, under the direction of Dr. Rogevin, a Russian medical scientist, in conjunction with Dr. William Cowl of New York. Numerous experiments in cases of morphine, strychnine and arsenic poisoning were made with cats, rats, mice and crabs. In each case where oxygen was given an unqualified cure was effcted. The experiments were conducted in the utmost privacy, with the intention of making their result known for the first time at the German medical congress in 1902.

The health authorities of Berlin are keenly interested in the experiments on account of the possibility of saving the lives of suicides by this means. It is pointed out that 90 per cent of suicides by poison are the result of morphine dyspnea, against which medical antidotes are powerless.

### SOLARIUM AT FT. BAYARD.

The contract has been let and work has commenced on a solarium at the Ft. Bayard Sanitarium. This addition is to be a large steel and glass building in which the patients at the sanitarium can gather and receive the benefit of the sun's rays when the weather is such that it would not be advisable for them to be in the open air. The sides and roof will be constructed entirely of glass and steel. On the sides there will be large windows or shutters which can be opened opposite from which the wind may be blowing, thus enabling the consumptives to breathe the ozone and avoid the dust and sand. In rainy weather the solarium will also be utilized.

### THE CALDAS SERUM DISAPPOINTING.

A report comes from Havanna that Major Havard, chief surgeon, says that as the yellow fever commission regards the experiments with the Caldas serum as demonstrations of its uselessness, the commission has definitely severed connection with the Brazilian expert and will not supervise any further experiments conducted by him.

"Dr. Caldas has all along maintained that he had found the yellow fever germ in the intestines," remarked Major Havard, "whereas all the experiments conducted here prove that the germ of the disease is in the blood, people having been directly inoculated by blood infection from a person suffering with yellow fever."

# Book Notices.

A TREATISE ON THE ACUTE, INFECTIOUS EXANTHEMATA. Including Variola, Rubeola, Scarlatina, Rubella, Varicella, and Vaccina, with especial reference to Diagnosis and Treatment. By William Thomas Corlett, M. D., L. R. C. P. Lond. Professor of Dermatology and Syphilology in Western Reserve University; Physician for Diseases of the Skin to Lakeside Hospital; Consulting Dermatologist to Charity Hospital, St. Alexis Hospital, and the City Hospital, Cleveland; Member of the American Dermatological Association and the Dermatological Society of Great Britain and Ireland. Illustrated by 12 Colored Plates, 28 Half-tone Plates from Life, and 2 Engravings. Pages viii-392. Size, 6¼ by 9¼ inches. Sold only by Subscription. Price, Extra Cloth, $4.00 net, delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

Although the physician always has the evidences of eruptive diseases exhibited plainly before his vision, yet he is very often misled as to their differentiation. To furnish a key, so to speak, Dr. Corlett, after years of careful study and labor of compilation, has now presented a work to the profession whose value cannot be computed, for its subject matter, together with the superb illustrations, furnishes information that is in some respects better than the bedside demonstration. To undergraduates a study of such a work is the only way to secure a broad insight into the various exanthemata sufficiently to be of value in daily practice, for the simple reason that the number of special hospitals and wards for the reception of the acute cases of such highly communicable diseases as variola, scarlatina and rubeola is limited, and for the same reason graduates will obtain more familiarity with this class of dermatological diseases in a shorter space of time than by actual contact with the cases themselves.

Chapter 1 deals with "The Early History of the Exanthemata," covering twenty-seven pages, and the succeeding six chapters, with their exquisite colored and half-tone plates, well-nigh exhaust the subjects of variola, vaccina, varicella, scarlatina, rubeola and rubella, including the best methods of treatment of each. These are followed with an addendum, with a "table showing the chief features in differential diagnosis of the acute infectious exanthemata," and a "formulary for disinfection especially applicable to the exanthemata."

---

LIBERTINISM AND MARRIAGE. By Dr. Louis Jullien (Paris). Surgeon of Saint-Lazare Prison; Laureate of the Institute, of the Academy of Medicine, and of the Faculty of Medicine of Paris. Translated by R. B. Douglas. Size of page 5½ by 7½ inches. Pages v-169. Extra Cloth, $1.00 net, Delivered. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

It is evidence of moral progress when France will evolve a medical writer who dares to raise his voice against the lementable villainy of the man who will enter wedlock with diseased genitalia, and, that there is much of this villainy throughout the world, is evident from a perusal of the work. It is not necessary, however, to reach the conclusion that the gonococcus is responsible for most of the problems of gynecology by going to a French author, for evidences are plainly discernable on all sides, which tell the story that this germ plays more havoc than syphilitic lesions, a fact that is not yet fully realized by the laity in general.

If blennorrhea of the genital organs was confined to the male its effects would be so limited as to be considered a plaything for the average man of the world, but we all know that it is generally the woman and her offspring who suffer the greater penalty from the profligacy of man. This being the case, it is exceedingly important to know that disease does not lurk in the urethras of those contemplating matrimony, for the contracting parties should "approach the hymenial altar either quite pure or in the plentitude of regained health. Let them do this by the force of moral conviction, by pride, or even to serve their interests."

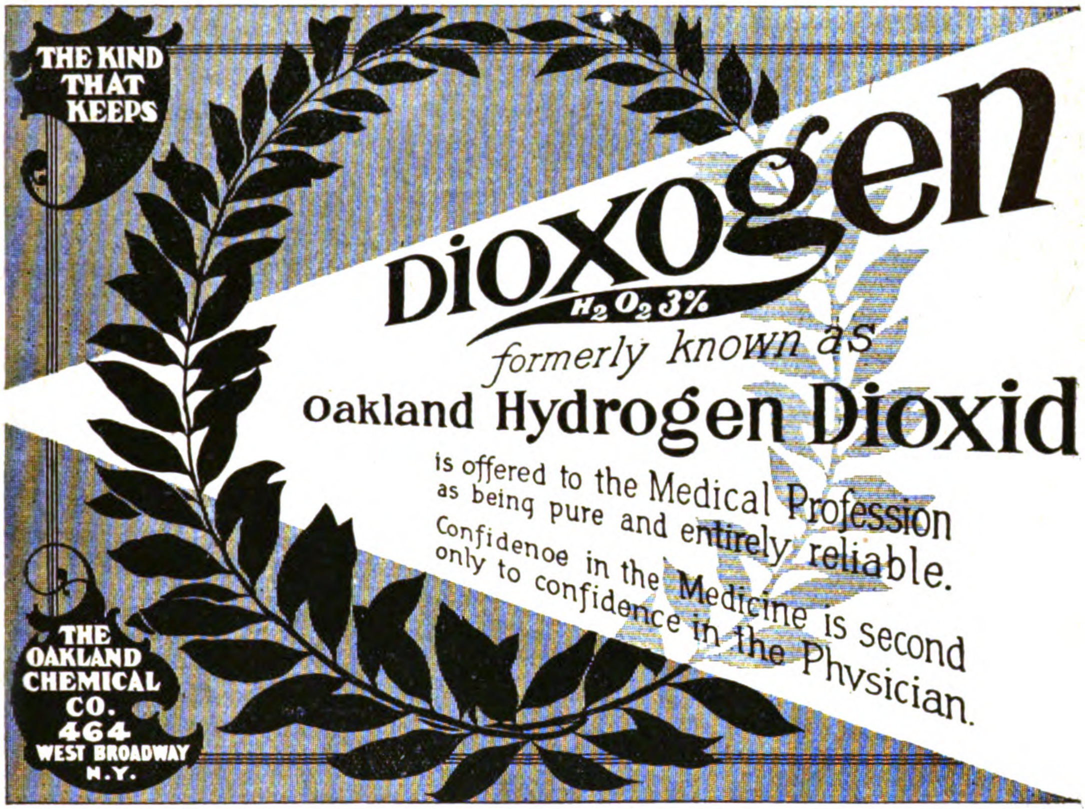
Dr. Jullien elaborates on all phases of the subject and outlines a method of procedure, which, if followed, would rid the world of a great deal of suffering and reduce the number of gynecological specialists. His work should find its way into the libraries of American physicians in general.

The introduction deals with professional discretion; chapter 1, the evolution of blennorrhea; chapter 2, the acute blennorrhea in the man; chapter 3, chronic blennorrhea in the man; chapter 4, blennorrhea cured in the man; chapter 5, acute blennorrhea in the woman; chapter 6, chronic blennorrhea in the woman; chapter 7, blennorrhea cured in the woman.

---

THE PHYSICIAN'S POCKET ACCOUNT BOOK, consisting of a manila-bound book of 208 pages and a leather case. By J. J. Taylor, M. D. Price, $1 complete. Subsequent books to fill the case, 40 cents each, or three for $1. Published by the Medical Council, Twelfth and Walnut Streets, Philadelphia.

The above account book is of very convenient size for the coat pocket. The pages are spaced for name at top of each, one page to be devoted to a single patient, with a number of pages in the back for five patients each. The various columns are for year, month and day; person to whom service is rendered; description of service; debit and credit. Several pages are allotted to obstetric practice, with table for calculating gestation period; other pages are for vaccinations; still others for deaths; and others for a cash account. The combination is bound substantially.



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Philadelphia, Sept. 2nd, 1901.

SANMETTO IN FREQUENT MICTURITION AND NEPHRITIS FOLLOWING LAGRIPPE. I used Sanmetto in a case of a man, seventy-eight years of age, recovering from LaGrippe, troubled with frequent micturition and chronic nephritis. The result of the agent was completely satisfactory. Have used it in cases of irritable bladder, with pleasing results.

A. BLODGETT, M. D.
Benecia, Cal.

MR. FRANK A. RUF, PRESIDENT AND treasurer of the Antikamnia Chemical Co., St. Louis, has recently been chosen vice president of the Fourth National Bank of St. Louis, and by virtue of his office is a director.

THE BRYAN RATIO OF 16 TO 1. S. F. Wehr, M .D., of Bellesville, Ill., late surgeon U. S. A., writing, says: "For upwards of ten years I have been using and prescribing Sanmetto for almost all kinds of genito-urinary troubles. I have never found anything its equal. In chronic cases of gleet it cannot be excelled. In all kidney troubles its action is fine, relieving backaches, etc. I could not get along without keeping it upon my dispensing shelf. Hundreds of empty bottles are in my cellar. I would exchange for filled ones at the Bryan ratio of 16 to 1. So much for Sanmetto."

THE RIO CHEMICAL CO. This company has removed its office and entire plant to 56 Thomas street, New York City, and will hereafter maintain no office in St. Louis or any other place in the United States. Its London branch is at 36 Basinghall street, and the Paris branch at 5 Rue de la Paix.

The Rio Chemical Co. manufactures "Celerina," "Aletris" (Rio) and "S. H. Kennedy's Ext. Pinus Canadensis' (white and dark).

We are in receipt of a copy of one of its magnificent albums, entitled "A Gallery of Pictures of Interest to Medical Men," containing twelve handsome colored pictures (no advertisments on face of them), on heavy plate paper suitable for framing. We understand these may be secured at 25 cents each.

SIMILAR TO THE EFFECT OF SUNLIGHT. (From The Medicus, May, 1901.) The physiological-chemistry of antikamnia, in disease, exhibits analgetic, antiperiodic, antipyretic and antiseptic functions. Its antiperiodic tendency is similar to the effect of sunlight, though differently expressed. However, with antikamnia, this latter function is materially aided when combined with other well-known drugs, such as quinine and the milder laxatives. The ideal combination I have in mind may be obtained in "laxative antikamnia and quinine tablets." To reduce fever quiet pain, and at the same time administer a gentle tonic-laxative is to ac-

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complish a great deal with a single tablet. Among the many diseases and affections which call for such a combination, I might mention la grippe, influenza, coryza, coughs and colds, chills and fever, and dengue with its general discomfort and great debility. These tablets, administered in doses of one or two and repeated every one or two hours, are a perfect antiperiodic in malaria, and a perfect reconstituent tonic—an expression of solar life, light and energy in malarial anaemia.

L. P. HAMMOND, A. B., M. D.
Rome, Ga.

**A WORD OF PRAISE.** It gives me pleasure to say a kind word for Sanmetto—it surely deserves praise. I have been using Sanmetto in all affections of the genito-urinary tract, and it is by far the most reliable and unfailing agent of its class known to me in thirty-one years' experience as a medical practitioner. Vivat Sanmetto!

H. D. GUIDRY, M. D.
Scott, La.

**OLEAGINOUS SCIENCE.** There have been many reported "strikes" in oils, and now it is asserted by some scientist that petroleum is really a distilled and fossil fish oil! Is it possible that Norway cod were really at the bottom of the Standard Oil Company? Who can say? If science says so, one may go on downing the oil, but there is no downing science.

Hagee evidently believes in science and in oil in the same breath. In any event Hagee's Ol. Morrhuae Comp. is the outcome of scientific combination and adaptation. Its formula makes it a food of the greatest value in all wasting diseases and low states.

If there is anything better in the market we shall be glad to herald its virtues.
—The Dietetic & Hygienic Gazette.

**SANMETTO IN HYPERTROPHIED PROSTATE AND IN IRRITABILITY OF BLADDER.** I put Sanmetto to a very thorough trial —thinking as I prescribed it, "Now, I will see." I have case in old gentleman suffering from hypertrophied prostate, of long standing; had been giving "elix. saw palmetto comp.," etc, substitutes of Sanmetto, I take it, but with little benefit. Had advised castration as only method of relief. But to my pleasure, and I may say surprise, I noticed some little benefit following administration of a bottle of Sanmetto. Bought another bottle—8 ounces—gave that, and am giving it now, with decided benefit. I gave another bottle of it to a patient who had been taking huge doses of kissengen and vichy salts for obesity, on advice of another physician, until he had produced an irritation of his bladder, almost beyond endurance. Two days' treatment with Sanmetto relieved him nicely, and a tablespoonful per day now controls it. I shall in future use only the "real thing"—no more substitutes of Sanmetto for me.

EDGAR I. BRADLEY, M. D.
Elkhorn, Mont.

**A CONTRIBUTION TO THE THERAPEUTICS OF PEPTO-MANGAN, "GUDE."** By Dr. Ludwig Pohl, City Physician of Vienna, Austria. It is about five years ago that I first had occasion to test Gude's Pepto-Mangan. The curative results obtained from its use were so surprisingly good that I decided to thoroughly experiment with this preparation on my abundant clinical material, the outcome of which is reported in this article.

The number of remedies introduced every year into the market are so numerous that for this reason alone it would be impossible to employ all of them, even if only experimentally, or to

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make a careful choice. Pepto-Mangan appealed to me strongly in the first instance for reasons that I shall explain. Although inclined to think well of this preparation from the first, I would remark that my observations were instituted without bias, and that my investigations were carried out in a strictly scientific manner.

I was led to make a thorough study of this preparation by the subjective statements of the patients that it never caused the least disturbances, the objective evidences of improvement, and, besides these, by the following considerations:

According to the views of many authors, iron preparations, to be efficient, must exert not only a local but distant, that is, general effect. In chlorosis and in many severe cases of anaemia chalybeates are said to remove the hydrogen sulphide, formed frequently in large amount in the alimentary tract, by the combination of the iron with the sulphur. This removal is necessary, because hydrogen sulphide, if present in too large quantity, renders impossible the absorption of the iron in the food by precipitating it in the form of sulphide of iron. It is known, however, that not only iron, but also manganese is adapted in a high degree for taking up hydrogen sulphide. Manganese therefore acts as an auxiliary to iron in this respect.

Another circumstance was decisive for me. A large number, almost all, of the officinal ferruginous preparations are absorbed only to a slight extent when administered internally. This can be maintained on the ground of the fact, that in animals and human beings positive evidence of the entrance of these preparations into the blood cannot be obtained if the persons experimented with have not intestinal catarrh or have not received excessive doses of iron. The more the preparation approximates to the form in which iron is contained in the food, the more likely it is to be absorbed. The peptonizing of an iron preparation is therefore of decided advantage, as its absorbability and assimilability is thereby enhanced to a considerable degree. Aside from this, the peptone combination is adapted for exerting the systemic effect. This general action of iron preparations only takes place if after absorption they undergo conversion into hemoglobin. Hence this conversion is only possible in the case of preparations which contain iron in form of an organic combination. They will then act even when containing a much smaller percentage of absolute iron.

It was therefore the chemical constitution of the preparation which appealed to me, and which induced me to undertake extensive experiments.

The cases in which I employed Gude's Pepto-Mangan comprised chiefly the poorer class of people. I mention this particularly, because with these patients it is difficult or well-nigh impossible to pay attention to the hygienic conditions or to consider the dietetic side of the treatment. Notwithstanding this, the results were favorable. Of course, they were most satisfactory in the case of those patients who were also able to carry out the hygienic and dietetic regulations.

Numerous cases of chlorosis, anaemia, neurasthenia, and hysteria, as well as two cases of malarial cachexia, were submitted to careful and thorough observation.

In many cases determinations of the bodily weight, measurements of the blood pressure, estimates of the hemoglobin percentage, and blood counts were made.

As regards the bodily weight, I observed in sluggish, obese, chlorotic patients a reduction in flesh as well as improvement of the general state. The high absorbing power of the preparation and its ready conversion into hemoglobin increases the oxygen capacity of the blood; pari passu with this there is an improvement of the metabolism, the oxidation, which takes place at the expense of the non-nitrogenous elements of the body, that is, the adipose tissue. In the case of lean persons I combine with this treatment rest in bed for several weeks, to which may be ascribed the increase of bodily weight observed.

There was a constant change in the conditions of blood pressure. In almost all the chlorotic patients the blood pressure, estimated by Basch's sphygmomanometer, became considerably higher. In many of my cases I noted improvements in the blood pressure of 40 to 60 millimetres in the course of four weeks. Besides this, the fluctuations of blood pressure so frequently observed during changes of position, disappeared; the pulse frequently diminished considerably; and the subjective disturbances connected with the circulatory apparatus, especially the troublesome palpitation of the heart, subsided. I would remark that this amelioration occurred under the use of no other remedy in so short a time as under that of Gude's Pepto-Mangan.

In judging of the value of an iron preparation, conclusive evidence is afforded by estimates of hemoglobin and blood counts. To determine the hemoglobin I employed Fleisch's hemoglobinometer, and as a solvent a 0.6 per cent. sodium chloride solution; for blood counts I made use of the apparatus of Thoma-Zeiss and a 2.5 per cent. solution of potassium bichromate for the red blood corpuscles; the white were not counted.

To demonstrate the changes in the hemoglobin and in the number of red corpuscles, I report here the history of a girl, 16 years old, affected with marked chlorosis. The disease was of almost two months' duration and attended with general functional disturbance. There were present mental anxiety, a disinclination to work, to enjoy life, or move about, marked muscular weakness, cardiac palpitation, difficulty in breathing, loss of appetite, headache, vertigo, restless sleep alternating with sleeplessness. The patient came from healthy parents, had previously been always healthy, and menstruated for the first time in her fifteenth year, but scantily and irregularly. Marked pallor of the skin and mucous membranes was noted; the lungs were normal. The area of cardiac dulness was enlarged toward the right side; blowing murmurs were heard over all the valves, and a bruit over the jugular vein. The radial artery was very small and soft; the pulse frequency 110. The spleen and liver were normal in size; there were no glandular swellings; the bones were not tender to pressure. The urine contained no abnormal constituents.

The percentage of hemoglobin in the blood was 35 per cent.; the number of red blood cells 2,700,000 to the cubic millimetre. The white cells were not increased; otherwise the condition of the blood was normal.

The treatment was as follows: The patient was advised to live on a mixed diet, with an abundance of fresh air and moderate out-door exercise. She also took three teaspoonfuls of Gude's Pepto-Mangan daily.

The increase of hemoglobin and of the number of red corpuscles is shown in the following:

At the end of the first week, hemoglobin, 45 per cent; red corpuscles to the cubic millimetre, 3,260,000; second week, hemoglobin, 60 per cent.; red corpuscles, 4,100,000; third week, hemoglobin, 70 per cent.; red corpuscles, 4,500,000; fourth week, hemoglobin, 75 per cent.; red corpuscles. 4,900,000.

Before proceeding with the history of this case I would emphasize the fact that the number of red blood cells increased more than one and one-half million, while the increase of hemoglobin amounted to more than 100 per cent. Such marked improvement in the condition of the blood under the treatment with Gude's Pepto-Mangan was not unusual, but rather the rule in chlorosis. And it may be assumed with certainty that the above descrived effect is attributable to the high absorbability of this preparation as compared with the numerous other chalybeates, and, further, to the combined action of iron and manganese upon the blood-forming organs. I would add that numerous investigators, such as Hannan, Kugler, and many other authors, have called attention to the important part played by manganese, both in the blood and as a hematogenic remedy.

In the case under consideration there was a perceptible improvement in the patient's subjective and objective state. The existing disturbances subsided gradually; the cardiac palpitation, loss of appetite, and sleeplessness disappeared, and after four weeks' treatment she was discharged cured.

It is not the purpose of this report to detail numerous histories of cases, and I shall content myself with briefly mentioning that I have treated more than 100 cases of chlorosis with Gude's Pepto-Mangan with as good results as those above described, except that in some instances the results did not appear as promptly. The fact cannot be sufficiently emphasized that during the entire course of treatment the remedy did not have to be discontinued on a single occasion, although this must be often done with other ferruginous preparations. I never heard a complaint that the preparation was not well tolerated; on the contrary, the patients stated that they did not experience the slightest disturbance even during its prolonged use, and that it acted mildly, was well borne, caused no disturbance of digestion, but rather promoted the latter, and was free from any disagreeable taste.

I have previously mentioned that it may be positively assumed that Pepto-Mangan "Gude" stimulates the hematopoietic organs to increased activity. Numerous blood findings discovered casually by me, the appearance of the so-called immature forms of blood corpuscles, constrain me to take this view. Of much greater importance is the circumstance, however, that in numerous diseases of the blood occurring in connection with the lymphatic and blood-making organs I have derived excellent results from the use of Gude's Pepto-Mangan.

Decided amelioration in the Leuchaemic state, arrest of the process in severe cases for a long time, reduction of the glandular swellings, improvement in the relation between red and white corpuscles, were noted by me in several cases under my care.

In my opinion, the value of ferruginous preparations in neurasthenia and hysteria has received too little consideration. The success of a rational therapy depends upon an effective application of all methods of treatment and remedies which enable us to combat the entire group of symptoms. An easily absorbable ferruginous preparation is of incontestable benefit, and I believe that Gude's Pepto-Mangan occupies a prominent place in this connection. It is not my intention here to institute comparisons with various iron preparations. I would emphasize, however, for reasons already mentioned and which are especially based upon the composition of Gude's Pepto-Mangan, that I prefer the latter preparation, and have employed it successfully in all conditions where it is necessary to improve the quality of the blood.

In conclusion, I would mention that I have obtained excellent results from Gude's Pepto-Mangan in two cases of severe malarial cachexia. In the one case the treatment occupied three weeks, in the other five weeks. Both cases were cured. It is of interest that in the first case in which a malarial attack had not occurred for some time, a typical paroxysm with rigor, fever and sweats developed. After one week's treatment the attack failed to recur, and for this reason I was unable to search for plasmodia. I am not disposed to over-estimate this occurrence, nor to make it the subject of theoretical reflections. I am decidedly of the opinion, however, that this attack is attributable to an influence of Pepto-Mangen "Gude" upon the spleen.

In all particulars Gude's Pepto-Mangan is an excellent preparation; which bids fair to occupy a permanent place in the materia medica. I would be pleased if through this article I had directed attention to this valuable remedy, and incited others to undertake experiments and report their observations.—Aerztlicher Central Anzeiger, Vienna, Austria, Sept. 20, 1899.

# MEDICAL DIAL

A Monthly Record of Medicine and Surgery

VOL. III No 12 — MINNEAPOLIS, DECEMBER 1, 1901 — $1.00 PER ANNUM 10C. PER COPY

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**Vol. III** **MINNEAPOLIS, MINN., DECEMBER, 1901** **No. 12**

THE ST. LOUIS TRAGEDY. Tetanus, one of the most terrible of diseases, has carried off eleven children at St. Louis under circumstances most lamentable. We do not desire to add to the remorse which must be felt by those responsible, but a lesson must be learned from this catastrophe and the causes which led up to it.

Diphtheria antitoxin was used by several physicians in the treatment of eleven children suffering from diphtheria: all of the children developed tetanus and died. The antitoxin was supplied by the Board of Health, of St. Louis, the whole of it being obtained from a horse kept in the poor house stable for the purpose of supplying physicians with diphtheria antitoxin. It is admitted by the authorities that no means were employed to immunize the horse against tetanus, a precaution which is always taken by those who profess to supply a pure antitoxin. The most startling statement, however, in connection with this whole matter is that the JANITOR WAS ENTRUSTED WITH THE BOTTLING OF THE SERUM.

Commenting on the subject a recent writer has well said:

"Is it any wonder, then, that tetanus occurred, or is it not more to be wondered at that no more cases of tetanus occur in other cities where antitoxin is prepared with total disregard as to the requirements, not only of science, but also of common sense? A poor-house stable is manifestly an improper and unsanitary place for keeping a product which should, above all other products, be absolutely sterile; a janitor is as suited to assist at an abdominal operation as he is to handle or bottle antitoxin. In spite of dictates of pathology, bacteriology and hygiene as to how antitoxin should or must be made in order to be a safe and effective remedy, there is scarcely a city engaged in the production of antitoxin that makes even a superficial pretense of complying with these requirements—antitoxin is made under make-shift conditions prescribed by politicians.

"The practical lesson of the St. Louis incident is that physicians should taboo all antitoxins and vaccines produced under the conditions at present prevailing in the antitoxin laboratories under the control of municipal authorities; in no other way can they be assured that the St. Louis experience will not be repeated many times with the fearful price of loss of life to patients and detriment to the physician's reputation.

"Furthermore, it is not necessary to employ antitoxin prepared by city boards of health. There are private manufacturing houses with facilities to supply all the antitoxin required; moreover, these laboratories have been erected at immense expense and are under the constant care of specially-trained bacteriologists, veterinarians and physicians. In these laboratories antitoxin is produced under the conditions that meet all the requirements of hygiene and sanitary science; fatalities from the use of such antitoxins have never occurred because rigid safeguards protect their purity at every stage of production. Tetanus cannot occur among the horses in these private laboratories, because the horses are kept constantly immune by the systematic regular employment of tetanus antitoxin; tetanus germs cannot gain entrance to the antitoxin after it is drawn from the horse because the means by which such accidents occur are well known to science and are prevented by means equally well known.

"Antitoxin, as supplied by manufacturing houses, cannot by its very method of production be anything but antitoxin —live germs of any of the diseases are not injected into the horses. The essential differences between the antitoxin prepared by manufacturing houses and that produced by municipal governments is that in the former instance it is prepared under ideal scientific conditions, while in the latter it is but a little incident in a political organization; it is difficult enough to keep politics pure, but it is impossible to make pure political antitoxin. We have reason to congratulate the medical officers of the Health Departments in our larger cities, but they are subject to political control, may be changed or appointed at will, and under the very conditions can have no permanent responsibility."

But the mischief resulting from the criminal carelessness of the St. Louis Board of Health does not end with the death of the unfortunate victims of their blunder. In the past two weeks the Chicago Health Department reports an increase of fully one-third in the number of deaths from diphtheria in proportion to the number of cases reported. This is owing to a distrust of the use of antitoxin both by physicians and parents. This distrust is, however, wholly groundless, for, as stated by the Health Commissioner of Chicago, 140,000 injections of antitoxin distributed by his department during the past six years were not followed by a single bad result.

---

## FORMALIN SOAP IN THE NIGHT-SWEATS OF PHTHISIS.

The latest remedy for night-sweats in phthisis is formalin soap. Dohrn reports twelve cases treated at the Carolahans in Dresden by inunctions of a 5 to 10 per cent. formalized olive oil soap. In seven of the cases the sweats were completely arrested; all of the patients were benefitted. He recommends that the trunk be energeticaly rubbed with the soap for a minute and a half combined with massage, wiped off with a damp cloth and the body wiped dry. The patients express themeselves as greatly refreshed by the procedure and sleep generally follows.

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DANGERS OF TRIONAL. Trional, although a favorite and useful drug, is not free from danger. Archibald Church (American Medicine, Nov. 9) relates a case in which death followed its administration and he has collected a number of fatalities following trional and sulphonal. He gives a word of warning that abdominal distress and urinary derangements including, hematoporphyrinuria are indicative of trional poisoning of a grave character, and that even in doses considered safe the drug may give rise to serious and even fatal poisoning.

# The Discreet Nurse.

An Address to the Graduating Class of St. Barnabas Hospital, Minneapolis.

BY J. W. MacDONALD. M. D., F. R. C. S.

Ladies of the Graduating Class:

I congratulate you on your arrival at the goal to which your eyes have been directed during the three long years which you have spent in this school. I have watched your progress with deep interest and it gives me great pleasure to hear testimony to the faithful manner in which you have done your work.

As a member of the surgical staff my duties have called me to the hospital at all hours of the day and night. I have seen you in the early morning leaving this little chapel, whither you had come to sing your morning hymn and offer up your prayers, and the peaceful and confident expression on your faces showed that you had sought and received strength for the duties of the day.

You have been faithful at the bedside; you have stood by us in the operating room, where your watchful eyes and ready hands have anticipated our every want, and nobly have you done your part in moments the most anxious and trying.

I have had occasion many times to visit the hospital at the dead of night and I have observed your movements at those times. What an impressive scene is a hospital at night! The noise and bustle of the day are over; the streets are deserted, even the noisy cars have stopped and the great city outside is sleeping. All is still within, a holy silence pervades the place and a feeling comes over one that he is in the presence of Him who commanded the lame to walk, the blind to see and the fever stricken to rise. I have watched you as you glided noislessly from room to room, soothing the fretful ones, giving medicine to the restless ones and water to the thirsty ones—nothing too hard, nothing too repulsive—and all done for Mercy's sake. It has often appeared to me that the nearest resemblance to an angel on this earth is the faithful nurse, spotless in character, saintly in spirit, unselfish and untiring in the Christ-like work of helping those who cannot help themselves.

"So stood of old the Holy Christ
Amidst the suffering throng;
With whom his lightest touch sufficed
To make the weakest strong.

"That healing gift he lends to them
Who use it in his name;
The power that filled his garment's hem
Is evermore the same.

"For lo! in human hearts unseen
The Healer dwelleth still,
And they who make his temples clean
The best subserve his will.

"The holiest task by heaven decreed,
An errand all divine,
The burden of our common need
To render less is thine.

"The paths of pain are thine. Go forth
With patience, trust and hope;
The suffering of a sin-sick earth
Shall give thee ample scope.

"Beside the unveiled mysteries
Of life and death go stand,
With guarded lips and reverent eyes
And pure of heart and hand.

"So shalt thou be with power endued
From Him who went about
The Syrian hillsides doing good
And casting demons out.

"The good Phisician liveth yet
Thy friend and guide to be;
The Healer of Gennesaret
Shall walk the rounds with thee."

(J. G. Whittier.)

Now, that you have completed your training and are about to enter on a new and untried field of labor we all join in wishing you God speed. You will henceforth be free from the restraint and discipline which have surrounded you in the training school. Your responsibilities will be increased, and your opportunities will be enlarged. As you go from beneath this roof I beseech you to act and so work and live that you will be a credit to yourselves and an honor to the hospital that sent you forth.

There are many things I would like

to speak to you about but my time is short so I shall confine myself to giving you two pieces of advice.

1. Be discreet in your conduct. While the profession of nursing opens up an honorable and useful sphere for young women who from choice or necessity support themselves, it also places them in a position beset with many dangers. Your conduct will be watched with jealous eyes, the slightest departure from a strict line of propriety will be a sweet morsel to gossiping tongues; it will subject you to unjust criticism, your motives will be misconstrued and your slightest faults will be magnified. Sick people are proverbially unreasonable. The relationship existing between the physician and the nurse is watched very critically by the patient. I would warn you to be very guarded in this respect. For instance, do not leave the sick room to see the doctor to the door. A few minutes harmless conversation at such a time may be construed into improper intimacy and your character though pure and spotless may be misunderstood. The physician with the purest of motives may feel impelled to reward you for your faithfulness by a present. I have no hesitation in advising you to accept no presents under such circumstances. The safest rule to follow is to accept presents from none but your lady patients. If your male patients feel that you have done more than they expected of you let them pay you a good price for your services and you can throw off the sentimentality from their bills. You may be worn out from watching and in need of fresh air and the doctor may in the goodness of his heart invite you to take a drive with him. I would advise you to decline the invitation. For no matter how pure your and his motives may be an uncharitable public will judge you harshly. You will suffer thereby and through your indiscretion all your sister nurses will suffer. Keep this motto before your eyes, "Avoid the appearance of evil." If the world had the fairness to weigh your good deeds on one scale and your evil deeds on the other the good would vastly outweigh the evil, but unfortunately a whole lifetime of well doing may be destroyed by a single indiscreet act. The first September frost may kill the beautiful flowers which we have watched and tended daily, almost hourly, through the long summer months. So may one little error bring a blight upon a reputation which has taken years of faithfulness to upbuild.

2. Make the most of your opportunities. You will have many avenues of usefulness opened up to you in your work. I shall only refer to one. There is in this country a mighty host of 60,600 persons all of whom are afflicted with blindness. Twelve thousand one hundred and twenty of those have had the starting point in that disease with which you are very familiar, ophthalmia neonatorum, and the interesting point about it is that this form of blindness is preventable. Twelve thousand of the blind people in this country could have been saved. Crede has shown that the simple matter of washing the eyelids of the new born and dropping two drops of a two or even one per cent solution of nitrate of silver into the eyes will prevent the disease and prevent the blindness which follows that disease. Do you not think that it would be a very fair reward for a life's work if you were the means of saving even one person from the terrible affliction of blindness? And yet I do not think it would be unreasonable to estimate that each of you can by strict attention to this one little matter be the means of saving many children from this terrible affliction.

Crede formerly had in the Leipsic Lying-in Asylum, on an average in the whole number of new born 10.8 per cent of cases of ophthalmia neonatorum. After the introduction of his prophylactic method the number sank to 0.1 to 0.2 per cent. The statistics of our own country are equally encouraging. According to the census of 1880 there were 48,928 persons blind of both eyes, an average of 976 persons in every million. The census of 1890 shows that there were 50,568 blind people, or 808 per million. The encouraging feature lies in the fact that in the ten years 1880 to 1890 the rate per million was reduced from 976 to 808.

# A Leisure Hour With Charcot.

BY CARYL B. STORRS, M. D., MINNEAPOLIS.

Oliver P. Carter, of Minneapolis, in his vain search for relief from locomotor ataxia, traveled over the civilized world and consulted eminent specialists in the United States, Great Britain and Europe.

In 1883 he went to Paris to see Charcot. He carried letters of introduction from Wier-Mitchell, of Philadelphia, Blood, of London, Byron Bromwell, of Edinboro, and other prominent physicians.

Charcot's consultation hours were from 11 A. M., to 6 P. M., Tuesday and Friday. The first Tuesday after reaching Paris Mr. Carter went to Charcot's house at 9 o'clock in the morning, thinking to run no risk of being late. He found the street almost blocked with carriages. He was shown into the general reception room, which was filled with patients in various stages of apparent and invisible diseases. All waited until 6 in the evening without seeing either Charcot or his assistant.

This experience was repeated Friday, and Tuesday and Friday of the next week. Mr. Carter began to despair of seeing the great doctor by ordinary means, and sought the advice of a medical acquaintance as to how to pass the barrier. This friend advised him to mail his letters of introduction to Charcot, and gave him another to swell the number. Mr. Carter mailed the letters, and in reply received a card which he was directed to present at his next visit.

The card proved an open sesame to a smaller waiting room, where waited a Russian princess, a Brazilian coffee planter and two English noblemen. They were called from the room, one by one, presumably into the presence of medical royalty.

About 4 o'clock Mr. Carter was ushered into a smaller room where stood a man whom he supposed was Charcot. His surprise at his youthful appearance was brief, for it was not the great specialist, but his assistant, who soon after became his son-in-law. After he had asked about a hundred questions, and written down the answers, he returned Mr. Carter to the reception room.

Finally at 5 o'clock Mr. Carter was shown into the presence. He found Charcot familiar with his case, having read the answers written by the assistant.

As this informal article is simply a desultory contribution to the memories of the famous dead, and as his professional methods have been so fully exploited, nothing need be said of the consultation. When it was finished, and Mr. Carter was leaving the room, he paused to look at a painting on an easel near the door. Charcot observed his interest and asked:

"You like that picture?"

"Very much," Mr. Carter replied.

"You give me 200 francs for that picture?" asked Charcot.

"Two hundred!" exclaimed Mr. Carter, "I'll give you 2,000."

"Many people come here," said Charcot, "and look at that picture only for a minute, and then turn away. My dear sir, that is an Albert Durer, and 20,000 francs would not buy it."

Mr. Carter's interest in a picture which was usually unnoticed seemed to arouse Charcot's interest also. His was the last consultation, and Charcot invited him to go through the house and see his art treasures.

Mr. Carter enjoyed a rare three hours, for Charcot kept him until 9 o'clock. Charcot had treated members of every royal family in Europe, and in addition to heavy purses, gifts truly royal had been showered upon him.

Rare pictures, Gobelin tapestries, jeweled caskets, vases, statues and carvings made the house a treasury of precious and beautiful objects. As Mr. Carter was leaving, and stood in the main hall to thank his genial host and say farewell, his attention was again attracted by a magnificient newel post of carved rosewood, representing a mermaid with flowing hair and long curving body.

Again Charcot asked:

"You like that carving?"

"It is superb; marvelous." Mr. Carter answered.

"Is there anything queer about it?"

Charcot continued. "You look first at it then around the hall, then back to the mermaid again."

"If you will pardon my saying so," said Mr. Carter, "It does not seem to harmonize with the decorations. Was it made for this room?"

Charcot laughed and said:

"There is a little story about it. In Russia, you know, if you admire anything in the house of your host, he says, 'It is yours.' His horse, his wife, his children, anything; he calls it yours if you express admiration. It is merely a phrase of courtesy, so when I admired this newel post in the palace of a Russian prince whose wife I was attending, and he said it was mine, I thought no more of it."

"But soon after I reached my house this great thing was delivered at my door. I did not want it, and I had to take my house to pieces to get it inside, but what could I do?"

When Mr. Carter said good bye, Charcot suddenly exclaimed that he had one thing more to show him. He led him back through the house and out past the kitchen to a store room, where stood two barrels of large perfect apples; one held greenings, the other northern spies.

"Help yourself," said Charcot, "they are from your country. A patient from New York whom I treated successfully sends me every year two barrels like these."

"I am glad I cured that man," he concluded, as his teeth met in the rich sweet pulp of a big northern spy."

November 6th., 1901.

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## Naso-Pharyngeal Catarrh a Common Cause of Middle Ear Deafness.

BY W. H. COOKE, M. D., MINNEAPOLIS.

A common cause of middle ear deafness is naso-pharyngeal catarrh, which often causes swelling of the mucous membrane around the orifice of the eustachian tube, producing partial or complete stenosis, with deficient supply of air to the middle ear.

In children and young adults naso-pharyngeal catarrh is generally due to enlarged tonsils and adenoids. These patients breathe with the mouth open, snore at night, the voice has a nasal tone, the palate is high and arched, and after a time the face assumes a silly expression. Little attention is paid to these symptoms by the parents until they observe that the child appears stupid when spoken to and then they realize that the hearing is defective. The family physician is consulted, who often says the child has caught a little cold and will be all right in a few days. So the child is allowed to go on without treatment till the parents are convinced that something more serious is the matter than a cold.

Very often these patients are now referred to a specialist who is sorry to inform the parents that the child is partially deaf, that the cause is largely due to enlarged tonsils and adenoids, and advises an operation. It is well, however, to inform the parents that this in all cases will not immediately relieve the deafness, as there is some eustachian obstruction which must be overcome by treatment before the hearing is fully restored. In some cases where treatment has been delayed too long the hearing is never fully restored.

Every child with the above symptoms ought to be carefully examined and the real nature of the trouble found out. If it is due to enlarged tonsils and adenoids they ought to be removed and the child treated properly until hearing is fully restored.

# The Various Methods of Producing Anesthesia.

BY E. LAVAL, M. D., PARIS.

There are so many methods of obtaining anesthesia that the surgeon is often confronted by a veritable embarrassment of riches when desirous of selecting the most appropriate procedure. Nevertheless, says Dr. E. Laval, a few general rules can be established to serve as guides. All the various methods of producing anesthesia may be brought under two headings, since they aim either at general or at local anesthesia.

General Anesthesia.—The agents employed are chloroform, ether, nitrogen monoxide, ethyl bromide, etc. The latter two are especially adapted to operations about the mouth, nose, and throat—regions too sensitive for local anesthesia to suffice, and operation too much out of proportion to the profound anesthesia of ether or chloroform. Ethyl bromide is even simpler than nitrogen monoxide, being quick and reliable in action and free from bad after-effects.

Local Analgesia.—This method aims at producing local insensibility to pain only. The senses of touch, temperature, etc., are preserved. This purpose may be achieved by external and by subcutaneous application. The simplest procedure is compression. Thus, an ingrown toe-nail can be painlessly operated upon after applying a constricting bandage to the base of the toe. Recently, surgeons have been able to amputate a leg by using the same method of compression, by means of Esmarch's bandage. The anesthetic action is due partly to pressure on the nerves, partly also to the arrest of arterial blood supply.

Another equally simple anesthetic measure is refrigeration. A mixture of two parts of cracked ice and one part of sea salt is wrapped up in a cloth and applied to the field of operation. The tissues promptly become white, hard, and insensitive. Often refrigeration is combined with the specific action of a medicament, as in the ether spray. Local ether analgesia is, however, generally incomplete and the patients feel pain. Another disadvantage is the inflammability of ether. Methyl chloride is applied locally on cotton tampons and produces analgesia in three to five seconds. Ethyl chloride, projected on the skin from a distance of 30 to 35 Cm., causes first redness, then whiteness of the tissues. The latter condition is indicative of analgesia, lasting one to two minutes.

Refrigeration as a method is open to many objections: the action is transient, superficial, and mortification easily follows prolonged application, etc. Drugs may be applied locally in place of ice. Carbonic acid and carbon sulphide were formerly used in this connection, as well as belladonna ointment, phenic acid, etc., only to be abandoned. At present cocaine is frequently used as a local anesthetic. Besides all these topical measures, hypodermic medication was also early employed with the view of producing anesthesia.

Reclus was the first to use cocaine for this purpose. A freshly prepared 1-per-cent. solution may be injected to the extent of 2 to 5 drams. Modifications of his method were soon introduced, and it was found advisable to apply a ligature to the member and then inject the drug directly into the nerve-trunks supplying the field of operation. Another modification is Schleich's infiltration method, which produces anesthesia chiefly by mechanical action of the injections. The solution used is only to a small extent responsible for the effect. Schleich recommended a combination of cocaine, morphine, sodium chloride, and distilled water. Finally, cocaine has been injected into the subarachnoid space, in order to have it act directly on the nerve-trunks supplying the region of operation.

The question now arises: What are the indications of all these different methods?

The ideal method ought to afford a maximum of anesthesia with a minimum of danger. Of all the procedures mentioned above, we have seen that the external measures are open to the objection of transient and superficial action, while the more thorough methods, like etherization, etc., are not free from danger. Therefore, some concessions must be made to both and the following points may be taken as a guide:

For operations about the face, teeth, and pharynx, ethyl bromide is the preferable anesthetic.

For the extremities, compression by means of an Esmarch ligature, with or without cocaine injections, is the best method.

For major operations on the extremities, general anesthetics are usually employed, but the patient is greatly endangered by them. They are, therefore, best substituted by Esmarch's bandage and cocaine injections, locally or subarachnoidally.

On the other hand, abdominal surgery must resort to general anesthetics, taking all their drawbacks into the bargain.

The same must be said of major operations of the head, while smaller operations about the trunk may be performed under local cocainization. — Merck's Archives.

# Modern Treatment of Syphilis.

BY M. SHELLENBERG, M. D., PHILADELPHIA, PA.

There is no disease of which a profound knowledge is of more importance to the general practitioner than the question of syphilis, because while men, the active ones contracting the disease, are apt to consult specialists, their wives and children fall into the hands of the family physician. If, therefore, the family physician is indifferent or incapable, the first and second stages of the disorder, which is comparatively insignificant in women in the production of specific symptoms, may escape his attention, and thus be transmitted to future generations.

As regards the general treatment of syphilis, the keynote of success lies in the treatment of the patient as well as of the disease. It must be remembered that mercury and the iodide of potassium are not the only drugs to be employed. Codliver oil, iron and whiskey, are frequently as valuable as mercury; especially in cases of precocious, malignant syphilis. In ordinary cases of secondary syphilis many authorities believe that there are only two forms of treatment, the protiodide of mercury internally, and mercurial inunctions. Secondary lesions generally yield to one or the other of these treatments.

When the question of inunction is mentioned, it is generally very limited in its description of its application, but it is well to remember that there are good, bad and indifferent ways of applying inunction. Pagenstecker, in his use of inunctions of mercury, directs the patient to wash certain portions of his arms or legs thoroughly with soap and water; then he is directed to put upon that part a certain dose of the ointment, which is rubbed in by means of a little glass rod. The part is then wiped off. This serves as a prompt and rapid method of getting the mecurial effect.

When the protiodide of mercury is not tolerated by the digestion, the use of the grey powder is generally very excellent. The tolerance of individuals varies very greatly, and what will agree with one patient may disagree entirely with another. It sometimes happens that if treatment must be suspended because of gastro-intestinal irritation, that after the use of mercurial ointments for a few weeks, one can return safely to dosage by the mouth.

There is a tendency at present to use much smaller doses of the iodides than those commonly recommended for the late eruption of syphilis. Some authorities have found that a smaller dose, as a single grain will eradicate the tubercular syphilide. These small doses have this to recommend them, that they do not cause disarrangement of the stomach. If the iodides are not tolerated at all by the stomach, they can be given quite satisfactorily by enema.

There is no doubt that syphilis is a local as well as a general disease, and we should at once get the skin in as healthy a condition as possible by the use of frequent baths, with disinfecting soaps. In the treatment of mucous patches it is well first to cleanse the parts with hot water and some medicated soap. All moist lesions on the external skin had better be washed with a solution of nitrate of silver in strength of from 5 to 50 per cent., applied by a little wad of cotton. This forms a coat of coagulated albumen, which favors the tendency to cure and renders it harmless. A little finely powdered aristol or similar substance may also be dusted over the lesions.

When the mucous patches are found on or within the mouth, nitrate of silver is not strong enough for the purpose of local treatment. Nitrate of mercury, made by mixing one part of the liquor hydrargyri nitratis with ten to twenty parts of distilled water to be gently brushed over the surface after the spot has been carefully dried. The peroxide of hydrogen may also be used for cleansing purposes in the mouth. Decayed and broken teeth, decaying food, or the use of chewing tobacco, all tend to help the spread of mucous patches.

The patient is always anxious to remove the disfigurement caused by the lesions of secondary syphilis, so that ointments containing mercurial salts, such as oleate, white precipitate, or the nitrate can be used. Alcoholic solutions or collodion solutions of the bichloride of mercury are excellent for apetic purposes, and do away with the use of the old-fashioned mercurial ointment so unsightly and disagreeable.

When it comes to the tertiary syphilis, local treatment is excellent as an active agent. When pain, heat and other signs of inflammation are found in connection with the syphilitic eruption it is often better to postpone all specific treatment and use sedative lotions and general treatment, returning to the specific treatment when the acute symptoms have disappeared. An interesting case has recently been reported in regard to the excision of chancre. A man noted a secondary rash on his mistress, and watched eagerly for manifestations in his own person; within a few hours at the appearance of a sore it was thoroughly excised. No treatment was given until the appearance of secondary symptoms, but the case proved to be one of severe syphilitic poisoning. This seems reasonable, for it takes at least ten days or two weeks to diagnose the chancre after the exposure to infection, and it is useless to excise a sore until it is diagnosed, for the patient will remain in an uncertainty for the rest of his existence.

As a guide to the successful treatment, a scientific method is the estimation of the hæmaglobin and the corpuscular count. This should be always done in patients who are losing weight or becoming anemic under specific treatment.

Ulcers and strictures of the rectum are not uncommonly the sequelæ of tertiary syphilis. They are apt to be overlooked until contraction of the bowel has actually taken place. They are generally accompanied by a chronic diarrhea, and have been treated by remedies for that disorder, which naturally produce but little good. It is better to put the patient in bed and give him a liquid diet of nourishing food in small quantities at short intervals. If the intestines are in an irritable condition, it is well to wash the lower bowels with a solution of nitrate of silver 1 to 5000. This solution can be introduced into the rectum daily in the amount of about a quart. After this an aqueous solution of iodoform can be thrown into the rectum and allowed to remain. When the general condition of the patient has been improved, and the ulcer began to heal, the tendency to recover can be stimulated by touching the ulcer very gently with solid nitrate of silver from time to time. If, after the ulcer heals, there is tendency to contraction at the seat of the scar, the use of the rectal bougie is recommended.

Syphilitic stricture of the rectum generally is a sequence of ulceration and is found, as a rule, within the first three inches of the bowel. These strictures are generally annular and most dense on the floor of the rectum. Abscesses and fistulæ often follow this condition. The feces are like small pellets or ribbons. Diarrhea frequently alternates with constipation. Iodide of potassium, if well borne, does great good in these cases; but it should not be forced if poorly assimilated. Then give nourishing food and digestive remedies. Wash the bowel out daily if possible with a quart of boric acid solution through a small rectal tube. Sweet oil, given internally, lubricates the intestinal tube and helps the passage of fecal matter. Gradual dilation by the use of rubber bougies may be cautiously tried. If the introduction produces no pain, allow the tube to remain in position for ten minutes, gradually increasing its bulk until a moderate size rectal bougie can be easily inserted.—Med. Summary.

# *Some Remarks on the Etiology of Apoplexies.

BY W. K. WALKER, M. D., DIXMONT, PA.

In Dr. Diller's interesting series of cases this feature stands out prominently; the varying clinical features presented, however accurately they may enable us to determine the character and to locate the lesion within the complicated structure of the brain, are due to destructive changes in brain tissue which we can but little modify by treatment; and this because each case represents the termination or final culmination of conditions and causes which have probably been operative for years. Without consideration of this etiologic aspect, therefore, it seems to me that the lesson to be taken from the paper to which we have listened would be lost.

Whether of cerebrum, cerebellum, or pons, the primary lesion and principal underlying cause is pathologic change in blood-vessel walls. So gradual may this have been in its development, insidiously advancing without the production of symptoms (indeed, the subject is commonly the picture of health and vigor), that the final result in sudden damage to neural tissue often occurs without warning.

That "a man is as old as his arteries" has long been an axiom. Osler says that longevity is thus made a vascular question, and, also, that to the majority of men death comes primarily or secondarily by this portal. Bad quality of the arterial tubing may be inherited, but "a vessel which at the outset was well developed may be modified by the far-reaching influence of post-natal diseases and the influence of various poisons" (Berkley). With disturbance of cell-nutrition consequent upon damage to vessel-walls, we have the production of symptoms varying with the anatomic character and concomitant function of organs involved. With increasing knowledge of the causes and pathology of these changes, the relation of vascular degeneration to nerve lesions assumes increasing importance, many diseases of the nervous system formerly described as trophic, vasomoter, etc., now being determined to be of vascular origin. Results of recent investigations in neuropathology show that the chromatic substance, the most important constituent of nerve cells, is more susceptible to the effects of disordered circulation than to the action of most bacterial toxins (Ewing), and we know that in those forms of insanity which are to-day based upon a precise morbid anatomy—e. g. syphilitic insanity, paralytic dementia, senile dementia—the essential lesions are

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*Read in the discussion of Dr. Diller's paper on apoplexy before the Pittsburg Academy of Medicine September, 30, 1901.

of the vascular apparatus. Although vascular in origin, the clinical manifestations are due to resulting interference with nutrition or destruction of various groups of neurons, with consequent impairment or abolition of their functions. That the manifestations should vary so greatly when the higher cerebral centers suffer as a result of these changes can be explained only on the grounds of variations in vulnerability of different portions of the brain, and in nervous instability, either inherited or acquired by modes of living. Given, then, an inherited vulnerability of the arterial tubing, a relatively slight influence of the factor of irritant poison may be required to produce serious damage in blood-vessel walls.

In addition to the factors named, there is frequently operating the inciting one of high functional activity, which, in a given individual, determines the location of the lesion in a certain set or group of neurons. "The life of a blood vessel in the main depends upon the use made of it;" enfeeblement by stress would, therefore, predispose particular vessels or sets of vessels, to injury when subjected to the special force of poisons introduced into the blood stream. One of Dr. Diller's cases well illustrates how over work of a complex center may determine the location of the lesion. I refer to the case of hemianopsia which I saw about six weeks after its development. The patient, a Roman Cathoilc priest, is also an artist of recognized ability and prolific brush; the exercise of his talents in this line has been his one "recreation" in a life of unusually arduous labors associated with anxiety or stress. Excessive functional activity of the representative visual centers was, doubtless, the potent factor determining the location of lesion in the walls of blood vessels supplying the overworked area. Of interest in this case was family history, which revealed blood-vessel vulnerability on the father's side, with marked nerve instability on the mother's, with personal history showing both tendencies existing in the patient in an exaggerated degree.

Another instance within the domain of organic degenerative processes is furnished by the lesions of paralytic dementia, a disease in which the minute vessels of the cerebral cortex become profoundly involved, degeneration of cortical cells resulting, or at least progressing, with the vascular degenerative process. It was early noted that this disease most frequently attacked those subjected to mental overwork, i. e. to excessive functional activity of the higher cerebral centers, and to-day it is generally conceded that stress, either relative or absolute, is important as one of the factors in its production. Though said to be "more gradual in its commencement than any other known desease," paralytic dementia is, in reality, not more so than is disease of like pathogenesis in other organs, viz., kidneys, liver, and heart; in all there may be advanced degenerative vascular lesions associated with gradually progressive parenchymal damage, usually far advanced when first made manifest by symptoms.

As determining which cells or groups of cells are the first to give way, the "selective" action of the various poisons (notably that of syphilis) has been described; this so frequently gives the impress to a clinical picture that the cause of the disease, it has been said, is revealed by the character of the symptoms. We more and more realize, however, that a high degree of functional activity is a most important factor in locating the lesion. As an instance of the selective action of the syphilitic virus, involvement of the centers of vision and the muscular mechanism of the eye is one commonly used. The complex mechanism of binocular vision, so delicately adjusted and so constantly subjected to stress and strain (whether by refractive error or actual overwork), is precisely the one which best illustrates the operation of the principle I have referred to.

As initial causes of vascular degenerative diseases, syphilis and alcohol will probably always be the most frequent and most potent because of their widespread influence, their virulence, and the fact that their action is continuously exerted over a long period of time. Other toxins, however, are known to exert their baneful influence upon blood-vessel walls and to be productive of degenerative conditions heretofore considered characteristic of a few special poisons. With paralytic dementia again ilustrating the etiologic importance of these, the recently expressed conviction of Regis is significant. Previously giving the chief occasional cause of this disease as syphilis, he now believes that tuberculosis or any other infection may be the etiologic factor in the production of paralytic dementia, and not necessarily always syphilis.

Indicative of the increasingly great importance which is given to autotoxic substances as causes of disease is the theory advanced by Dr. Ford Robertson in the British Medical Journal of June 29, 1901, which makes paralytic dementia (and this disease best illustrates the insidious progress of vascular degenerative lesion) a disease due to a toxæmia of gastrointestinal origin; toxins developed by the excessive growth of bacteria which normally inhabit the alimentary tract, particularly affecting the nutrition of the vessels of the central nervous system, and more especially those of very vascular regions, such as the cerebral cortex. He believes that the toxæmia exists for months or even years before the first manifestation of nervous disorder. Whether later developments will bear out this theory of the disease remains to be demonstrated. At all events, we know that cerebral apoplexies are frequently met with in pale, nervous individuals of the type characterized by indigestion, who present no history of indulgence in alcohol, nor evidence of syphilitic infection. In the light of recent discoveries in the field of neuropathology, which are in concordance with the views here quoted, we must incline to the belief that toxæmias of gastrointestinal origin may be potent factors in the production of vascular degenerative disease, which, in turn, is the cause of many degenerative neuroses.

The importance of the most virulent poisons of syphilis and alcohol as causes of the well-marked cases of degenerative vascular and nervous disease instanced in Dr. Diller's cases is quite generally recognized. The influence of these same factors is not so generally admitted, however, in early involvement of an organ which must express its condition in terms other than those of pain, disordered or changed secretions, etc.; I refer to the higher brain centers, which suffer in precisely the same manner as other organs, but whose altered or perverted functions are made manifest by such symptoms as lowered capacity for work, forgetfulness, sleeplessness. changes of humor, irritability, suspicions, changes in the natural affections or in habits of education, morbid emotions, obsessions, confusion, etc. Symptoms of this order are frequently encountered in active individuals in the prime of life and later, or in those of earlier years who have been subjected to the influence of bacterial autogenous, or other poisons, and they become here of equal significance with perverted secretions of glandular organs, or failing cardiac power, when kidneys, liver or heart suffer disease of like pathogenesis. In short, most of the symptoms named. though oftenest considered in connection with the functional psychoses, may also be the precursors of grave organic degenerative disease of the nervous system. In the first class the cases are produced by exhaustion or perverted nutrition of groups or systems of neurons. while in the second class they are due to interference with cell nutrition, progressing to more or less complete destruction, because of extensive changes in blood-vessel walls. With the greater light which chemistry and neurohistology are shedding upon the complex nutritive processes going on within the nerve cell, the causative factors of vascular degenerative disease must more and more occupy our attention.

Appreciation of the far-reaching and destructive influences of the various poisons upon blood-vessel walls, as well as upon nervelcells brings practical results. The known tendency of all—whether resulting from infectious disease suffered in early life, from altered and perverted processes in body chemistry, or from the virulent poisons of syphilis and alcohol, to expend their forces upon the vascular walls with consequent deterioration or destruction of the functional units of organs, whether glandular, muscular, or of the delicate and complex structure of the brain and nervous system—should lead to prompt, energetic and prolonged treatment of one known to have been subjected to their influence; and when family history reveals inherited instability or vulnerability of nervous tissue, early appreciation of the significance of the vague symptoms of disturbed circulation within the brain will enable us to do much to prevent the more serious developments and complications which we are so powerless to cure.

It would seem that in no other class of diseases is the influence of heredity so readily traced as in those due to vascular degenerations, nor more plainly manifested the truth that not the disease itself is inherited, but rather "a peculiar type of tissue, which renders the individual peculiarly susceptible to the influence of morbific agents."—Med. Record.

## Treatment of Blood Poisoning.

BY J. BYRON SLOANE, M. D., DETROIT, MICH.

Some three years ago I was called to see a lady who was suffering considerably with a sore toe, caused by an ingrown toe-nail. It had been troubling her for some days, was considerably swollen—in fact, the whole foot and ankle were involved, and the glands in the groin were enlarged and painful.

At the time, I was treating a case of erysipelas and was using a preparation of belladonna, aconite, and ichthyol, and had received such excellent results in reducing the inflammation and swelling that I decided to apply the same preparation (with the addition of opium and veratrum viride, as there was much pain) to her foot, as follows:

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|---|---|
| Tinct. Opium ............ | 4 dr. |
| Fld. Ext. Aconite ......... | 2 dr. |
| Ext. Belladonna .......... | 4 dr. |
| Fld. Ext. Veratrum. Viride. | 3 dr. |
| Ichthyol ...........to make | 4 oz. |

Apply every three hours.

The next day the pain was almost entirely gone, the swelling had disappeared from the foot, and likewise almost from the toe. In less than a week she was able to wear her shoe, and the toe gave her no more trouble after that.

Some time later I was consulted by a man who had stepped on a nail, it running almost through his foot, which was giving him considerable trouble. I prescribed the above mixture, to be applied as in the other case. I saw nothing more of him until a week or two later, when he informed me that his foot was perfectly well after a few days' treatment.

At Grace Hospital, during an operation for laparotomy, in which there was considerable pus and inflammation, I accidentally ran a needle into my thumb. I treated it at the time and soaked it in a bichloride solution, then paid no more attention to it, although it continued to be sore. About three or four days afterward I was awakened in the night by its paining me, and found it much swollen, although on going to bed there was no swelling. My arm pained me up to the shoulder, and there were several red streaks running up the arm. Remembering the fate of several other physicians who had had similar trouble that had come on just as this had, my first intention was to go to the hospital and have it operated on at once. I called a carriage and was going to stop on my way for some other physician to go with me and open up my thumb, when I remembered the solution which I had tried on others with such good results, so I decided to try it before going to the hospital. After making the application and applying a bandage, I lay down in bed and fell asleep, it being about 3 a. m., and I did not awaken until morning, when to my great surprise my hand and thumb were almost well, the swelling had gone, except at the end where the needle had entered, and there was no pain in my arm. I kept the solution on for a day or two and had no more trouble with it afterward. Since that time I have used it in several cases with the same good results, only one of which I will relate.

Mr. C. G., clerk at one of the hotels in this city, while out driving, hurt the middle finger of his left hand, breaking the skin at the time. It did not heal and commenced to swell and fester at the abrasion, and a day or so afterward he was taken with a severe chill. On seeing him I found his temperature 104, pulse 120, and he was in great distress, as he ached all over. He did not say anything about his hand hurting him, so I gave him a prescription, thinking he was coming down with inflammatory rheumatism. About six o'clock the next morning I was telephoned to come at once, as Mr. G. had blood-poisoning. I found him much worse than on the previous day. His hand and also his forearm were swollen half way to his elbow, and the red streaks were very distinct all the way up to the shoulder, with a large lump in the axilla. He ached all over, and had had several chills during the night.

I ordered the above prescription, gave him medicine to take internally, and sent him to the hospital. The solution was applied to the hand and forearm, and the rest of the arm was soaked in ichthyol alone. In six hours—hardly seems credible—the pain had left his arm and hand, his temperature had dropped to normal, and in three days he had left the hospital well, and has had no bad effects from the trouble since.

Whether any or all cases would have recovered, as these did, from the use of ichthyol alone, I cannot say; still I will try it alone in a mild case the first chance I have. From my experience with this combination I do not think it would fail in a single case of blood-poisoning, if applied in the beginning of the attack. and I have reason to believe that it would cure a case well advanced. In such a case I would give it internally, as well as apply it locally.—Merck's Archives.

## A Case of Tetanus Successfully Treated With Antitetanic Serum.

BY R. GRAHAM, M. D., DULUTH, MINN.

J. M. was admitted to the Red Cross Hospital on the twelfth day of July, 1901, with a septic wound on the leg just below the knee, which he stated had been caused by a fire-cracker, on July 4th.

The wound was washed and dressed antiseptically, each day, and for a few days the patient seemed to be doing well, when be began to manifest symptoms of tetanus. Vigorous medicinal treatment was at once instituted, including chloral hydrate and the bromides which were given in large doses. The seriousness of the case developed to such a point that on the 19th of July serum treatment was begun. From Dr. S. F. Boyse, of Duluth, we obtained a supply of Parke, Davis & Co.'s Antitetanic Serum. This was administered hypodermically in the mammary region, at intervals of six hours. With the exception of the first, the injections were given by Doctor Huntoon, superintendent of the hospital.

Improvement in the patient's condition was soon observed and after the fifteenth injection, on the 27th of July, the rigidity entirely disappeared. The recovery was entirely uneventful, and the patient was ultimately discharged cured.

# Medical Miscellany.

AN AUTHOR'S FURTHER EXPLANATION.—To the Editors of the Medical Dial: Dear Doctors—In the November number of the Medical Dial you have given an excellent resumé of my article upon the subject of Burns, a study of which naturally requires consulting the opinions of many writers. In the lengthy article it is often difficult to find the needle of truth in the large stack of collected matter. The result of my work in this direction leads me to particularly emphasize that the value of any treatment for a burn is in an inverse proportion to the amount of irritation caused by the application.

The treatment which I advise for burns: after a thorough clearing up of the wound it is to be thoroughly washed by syringing with a dilute solution of hydrogen dioxide (the extent of dilution depending upon the pain caused, I have often been able to use full strength) in sterile water. When foaming has ceased the dressing of the wound consists in the application of small strips of membranous rubber tissue applied in a shingling fashion. Loose gauze is to be fluffed over the tissue and the whole held by means of a roller bandage.

The use of splints to secure relaxation and retention in obtaining a rest for a burned part is of great importance and is as much indicated in this form of injury as in fractures of the contiguous bones.

In the country before proper aid can be obtained friends of the patient will do best for him and present the burned parts in a condition for proper handling by the surgeon if they will confine their efforts to carefully cutting away loose clothing about the part, wrapping the wound with a piece of oiled or waxed paper, tied on with strips of muslin.

FREDERIC GRIFFITH, M.D.
Surgeon, Bellevue Dispensary.

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ST. BARNABAS HOSPITAL GRADUATES.—A class of six nurses was graduated from St. Barnabas Hospital training school for nurses Saturday evening, Nov. 2. The chapel was decorated with roses and carnations and the altar steps were banked with the flowers sent the graduates. Bishop Edsall and Dr. J. W. Macdonald gave addresses. John I. Black of the board of directors, presented the diplomas and the badges were given by Mrs. Ralph Peters. The graduates were Misses Bertha Johnson, Carrie Rankielour, Anna McEachern, Kathryn Kaynor, Charlotte Groves and Nellie Barsness.

After the exercises a reception was held in the training school and the rooms were decked with flowers. The graduates were assisted in receiving by Rev. and Mrs. Thomas W. McLean, Rev. and Mrs. Irving Johnson, Miss Harriet Hartry, directress of the nurses; Miss Staples, superintendent of the hospital; Messrs. H. E. Douglas, Robertson and Hector Baxter, of the board. Supper was served at tables decked with roses and chrysanthemums. Covers were laid for fifty.

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ALCOHOL AS AN ANTIDOTE FOR CARBOLIC ACID POISONING. Apparently there is more and more carbolic acid taken in lethal doses either with suicidal intent or accidentally. In Merck's "Archives," December, 1899, is a most excellent editorial upon this subject. The most valuable part, however, is that relating to the use of alcohol as an antidote. The writer says that usually, in managing such cases, after the bulk of the poison is ejected, an antidote is administered to neutralize the residue. If there were antidotes that could harmlessly and completely neutralize indefinite amounts of poisons, it would be the only proper practice to give the antidotes first and the emetics last. As antidotes of this kind are seldom if ever available, the practice is to empty the stomach first, to wash it thoroughly as possible next, and to give the antidote last. With carbolic acid, owing to the rapid escharotic action it exerts upon the stomach walls, this procedure should be reversed. The latest discovered antidote (alsohol) is best given first, because it appears to have the power of promptly checking the destructive action of the poison upon the tissue with which it is in immediate contact.

Drs. Phelps and Powell, at the New York Polyclinic, showed that they were able to overcome the escharotic action of carbolic acid in wounds on the hands and on mucous membranes by the use of alcohol. Dr. Phelps stated positively that alcohol is an absolutely safe and sure specific against the escharotic action of concentrated carbolic acid. A half pint of alcohol may be given or more than a pint. It seems that not only does the alcohol render the carbolic acid harmless, but the carbolic acid also neutralizes the toxic action of the alcohol, as is said to be the case in antidoting snake venom with alcohol.

On page 156 of our April number is an abstract of the report of Dr. Gross's experiences in Fort Wayne, in which he fully confirms the statements of Dr. Phelps. Oue of his demonstrations of the truth of the claim was to dip his tongue into strong carbolic acid, defying pain and escharotic action, and then to hold some alcohol in his mouth for thirty seconds, the result being that every trace of the effects of the acid was wiped out. Dr. Gross refers also to the fact that the physiological effects of alcohol internally are just such as would make of it an efficient internal antidote for carbolic-acid poisoning. Mr. H. B. Mason, of Detroit pointed out this fact at a still earlier date in the "Bulletin of Pharmacy." On page 441 of our October number was published a letter from Dr. Kelly, of Brooklyn, in which he deduces that by the use of alcohol, in a case where a child had taken a large amount of concentrated carbolic acid, he succeeded in saving its life.

We have taken pains to look up a large number of reported cases of carbolic acid poisoning that have occurred in the past. One thing has impressed us very forcibly in this search—the fact that where no alcohol was given, in cases that were known or reasonably believed to have retained 60 grains or upwards of absolute carbolic acid, the termination in nearly every one was fatal.

On the other hand, in all cases where alcohol was given, under the same conditions, the patients survived, although the physicians in attendance had no idea that alcohol possessed any specific antidotal action.—Med. and Surg. Monitor.

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## THE INTEPRETATION OF BACTERIOLOGICAL FINDINGS IN DIPHTHERIA DIAGNOSIS.

Hibbert Winslow Hill (Boston Med. and Sur. Jour.): When a physician receives a positive report on a culture sent in from a doubtful case, he may be sometimes puzzled to know exactly +.75 D. reduces the visual acuity, the case what diagnosis to base upon it.

At the bottom of much of the trouble found in adjusting laboratory reports to clinical diagnoses of disease lies the fact that the definitions and nomenclature of bacterial diseases are yet in a state of flux . Agreement in diagnosis can never be reached by two men whose definitions of the disease in question differs essentially.

The definition of any specific bacterial disease may be stated very broadly, as the reaction of the body to that portion of the specific bacterial toxins which the body fails to neutralize or eliminate. Under this definition the disease of diphtheria exists always, and exists only, when the body shows a reaction to toxins formed by the diphtheria bacillus.

The determination of the presence of the diphtheria bacillus is used as a sort of "toxin-indicator." It is true that the diphtheria bacillus may be present and yet no toxin be formed, for the diphtheria bacillus does not always produce its poisons. It is true that the diphtheria bacillus may be present and may be producing its poisons, and yet that the body forces may neutralize them as fast as they are made. In both these cases a diagnosis of diphtheria based on the presence of the diphtheria bacillus alone must fall to the ground, since in neither case will the body show a "reaction to diphtheria toxins" as required by the definition given.

Diphtheria diagnosis by culture, therefore, is based on a definition and some assumptions. It must be admitted that diphtheria is that disease, whatever its precise form, which is caused by diphtheria toxins. It must be assumed that if diphtheria bacilli are present, the diphtheria toxins are present also. It must be assumed that if diphtheria toxins are present, any symptoms presented by the patient are due to those toxins.

In the great majority of cases, these assumptions, always legitimate in the absence of evidence to the contrary, prove correct. Being based on generalizations, however, they will sometimes fail in particular cases, but the percentage of failure is much less that that of unaided clinical observation.

The absence of bacilli, once established, is complete proof of the absence of the disease of diphtheria; the difficulty is to establish their absence. Four or five negatives at least should be obtained (the more the better) before a diagnosis of diphtheria is surrendered on bacteriological evidence alone.—Medical Progress.

THE NATURE AND ORIGIN OF CARCINOMA. The fact that carcinoma is a progressively fatal and not in any sense a self-limited disease, ever undergoing spontaneous recovery, would seem to indicate that it cannot be included among parasitic diseases of vegetable origin, among the bacterial diseases. That it is infectious or capable of transmission seems almost demonstrated, but there is no agreement with regard to the identity of the hypothetic causative agent. It must not be forgotten here, as with the parasitic diseases of vegetable origin, that certain conditions of the organism—predisposing etiologic influences—are primarily essential for inoculation—to take place. There can be no doubt that hereditary, age and traumatism exert an influence in this connection. The only successful means of treatment as yet known consists in early and complete excision; but it is, perhaps, not extravagant to hope that, once the exciting cause is isolated, a biologic antidote may be obtained. A good deal of activity in research in this connection has been manifested in recent years, and one should be prepared to learn soon of the discovery of the nature and origin of carcinoma. In a review of recent studies upon this subject, read before the annual meeting of the Maine Medical Association on June 14, Dr. J. Collins Warren was inclined to agree with the statement that carcinoma is on the increase. The disease, unlike tuberculosis, is not uniformly distributed over the surface of the earth, but is rather confined to certain tolerably well-defined regions. Even houses and streets have been described in which cases have been repeatedly observed. There are numerous facts that are strongly suggestive of the communicability of carcinoma, but the clinical evidence, though positive, is not abundant. All of the inoculation-experiments, however, have been wanting in the isolation of the assigned causative agent from the induced lesions. —Phila. Med. Jour.

THE FOURTH DISEASE.—It is perplexing, after examining a child suffering from an exanthematous disease, to make a diagnosis of measles and then to be told that the patient has had the measles before; it is even possible that two former attacks of measles may be claimed for the patient. It has long been taught that one attack of an infectious disease protects the individual against a second attack; and researches in bacteriology, followed, as a natural consequence, by studies on immunity, have shown that the microörganisms of these diseases require a virgin soil for their growth and that their biological processes produce such changes in the body of the host that the soil is exhausted for the developement of that particular germ. Long ago measles and scarlet fever were thought to be one disease, until, in the seventeenth century, Sydenham clearly demonstrated the difference between them. Later, the term measles was shown to include two diseases, the second of which was termed rubella, rotheln or German measles. In this country, Smith, Holmes and Griffith, among others, have been instrumental in giving rubella its place as a distinct disease. Many writers describe a form of rubella that resembles measles in its symptomatology, rubella morbillosa, and a form that resembles scarlet fever, rubella scarlatinosa. It is the latter group of cases that leads to grave anxiety on the part of the physician. If the disease is scarlet fever, a period of isolation of from forty-two to fifty-six days is required before it is safe to allow the patient to resume his customary habits. If the disease is rubella, a shorter period of isolation is required. Clement Dukes (Lancet, July 14, 1900, p. 89) is convinced that there are two diseases included under the term rubella, rose rash or German measles; the one, rubella; the other he names "the fourth disease." This disease presents no premonitory symptoms, vomiting is usually absent, and the eruption, which is like that of scarlet fever, is the first symptom to attract attention. The fauces are red and swollen, but they give rise to no discomfort, however severe the rash may be. In some instances the skin is merely rough, but in the majority of cases there is free desquamation of small scales; in still other cases the desquamation is equal to the worst ever seen in scarlet fever. The tongue is furred throughout and there is no peeling of that organ on the fourth day as there is in scarlet fever The lymph-nodes are universally enlarged, tender and hard. The temperature averages 101 F.; the pulse is usually below 100; albuminuria is never found. The incubation period probably varies from nine to twenty-one days. The continuation of desquamnation, however, is of no consequence as a cause of infection or sequelae. The enumeration of the characteristics of the disease shows the main differences between it and scarlet fever. Furthermore, the disease is not a mild form of scarlet fever because both diseases occurred concurrently in the same epidemic, and some patients had both diseases in the same epidemic. The difficulties of distinguishing "fourth disease" from rubella are (1) the similarity of the symptoms in both, with the exception of the dual appearance of the rash. (2) The fact that in rubella the rash is at first discrete, like that of measles, but terminates by coalescing and assuming an appearance like that of scarlet fever. (3) Rubella and "fourth disease" frequently occur in the same locality at the same time. (4) The period of incubation is almost identical in both diseases. An attack of rubella, however, does not protect against "fourth disease." Simpson (Archives of Pediatrics, September, 1901) refers to an epidemic of an exanthematous disease in which there was difficulty in diagnosis. At first, the cases were thought to be cases of rubella; but later, were believed to be mild cases of scarlet fever. When, however, an attendant, who had previously had scarlet fever, contracted the disease, this diagnosis become doubtful. Many of the patients presented desquamation similar to that seen after an attack of scarlet fever. The incubation period was at least two weeks. Without positively committing himself, the author seems to incline to the opinion that this was an epidemic of "fourth disease." Ashby (British Medical Journal, September 7, 1901.) in a discussion in the Section of Diseases of Children of the British Medical Association places himself in agreement with Dukes. He believes that there are two diseases included under the term rubella; the usual one with a long period of incubation, German measles; and a rare one, only diagnosable when it occurs in epidemics.—Phila. Med. Jour.

NEW METHOD OF- DETERMINING THE AMOUNT OF HYDROCHLORIC ACID IN THE GASTRIC CONTENTS. Max Einhorn, in the Medical News of July 20, 1901 says that Gunzburg's test is complicated and lengthy, particularly as the same procedure is repeated after each dilution. He has substituted for this test filter-paper saturated with a solution of dimethyl-amido-azobenzol. A minute portion of the stomach contents is placed by means of a glass rod upon the paper. If it turns red, one drop of the contents is diluted with two drops of water in a small porcelain dish. A glass rod is dipped into the mixture, and if the test paper again turns red, one or two more drops of water are added and the procedure is repeated. This is done until a slightly red or almost no red color is produced. The amount of dilution which gives the slightest perceptible reaction with the test paper is determined. In the first test, if there is a failure to react with the solution, the absence of hydrochloric acid is self-evident. Approximate accuracy is secured by the method, which has the merit of being rapid. A dilution from three to six times corresponds to a normal amount of hydrochloric acid; under three, to subnormal acidity; and over six, to hyperacidity.—Medicine.

NAUSEA AND VOMITING DURING PREGNANCY. The chief causes of this complication, according to Taylor, are: 1. Deficient excretion, due to carelessness in regard to the condition of the bowels and kidneys. 2. Mechanical reasons, the pressure on the rectum by malpositions of the uterus, or tumors with or withont adhesions, causing reflex disturbance. 3. Nervous irritability. In all cases careful physical examination should be made to determine the pathological facts, and the cause, whatever it may be, removed. In case of nervous irritability the exci--ting cause should also be looked after and possibly malaria or other toxins. Rest in bed, avoidance of excitement, the use of potassium bromide, valerian fluid extract, dilute hydrocyanic acid or other nerve sedatives mentioned. The pernicious vomiting of pregnancy described by some text-books is simply the intensification of ordinary conditions, usually due to prolonged neglect or ignorance. There is danger in the suggested remedies or dilation of the cervix or emptying the uterus, since there are many women whose statements are unreliable in this regard, and whose neglect of treatment is the direct outcome of their desire to have a miscarriage at any price.—Journal A. M. A.

SURGICAL TREATMENT OF NASAL CATARRH. Owen Smith, M. D., (Jour. of Med. and Science): Not a few physicians still continue to regard nasal catarrh as a distinct disease, rather than a disagreeable symptom of many conditions found in the nose. Douches and sprays form their armament against its onslaught. The more knowing ones (?) use the cautery knife with an air of superiority. Results of such treatment are known to be either negative, or even harmful. Patients refuse treatment in consequence. By proper treatment all cases can be relieved; most cured.

Hyperthropic rhinitis, deflected septum, and adenoid vegetations play the chief part in the causation of this condition. Suppurative diseases of the posterior ethmoidal cells are also an important factor. The muco-purulent discharge found in these conditions is called nasal catarrh by the patient. The pathology and anatomy were briefly reviewed and illustrated with drawings by the essayist.

Symptoms—Obstruction with more or less mouth-breath, dryness of the throat. The obstruction, due to hypertrophic rhinitis, may be unilateral or bilateral; may disappear for time altogether, to reappear at the slightest change in the circulation. The tongue is coated and the breath is foul. There is a desire to clear the secretions from the throat, particularly in the morning, as they accumulate on the upper surface of the soft palate and in the naso-pharnyx during the night. Tenacious muco-purulent masses drop into the throat, an effort to dislodge them is made by retching, hawking, or even vomiting. Stringy pieces remaining keep up a cough well into the day. A dull headache, and untouched breakfast, leaves the patient weak and unfit for work. The faucial pillars are congested and veins stand out plainly upon the pharyngeal mucous membrane. Hoarsness is a troublesome symptom, often wearing away during the day. Otitis media chronica may be the cause of the patient seeking relief for this far-reaching disease.

Surgery is the method of treatment. A cocaine solution of from five to twenty per cent. is rubbed well into the parts to be anaesthetized with an applicator tightly wrapped with cotton. Cotton pledges saturated with even weak solutions of cocaine, should never be left in the nose. The cautery knife is not only useless but harmful, in true hypertrophies. Point punctures may produce good results, but are slower and seem less surgical than the scissors, snare or saw. If a small piece of bone is removed with the hypertrophic tissue the results are ideal, the resulting adhesions prevent after swelling. The deflected septum straightened after the method of Dr. Beaman Douglas is entirely satisfactory. Adenoids should be removed, even when not obstructive, if secreting. Rest in bed should follow operation upon the nose. A nervous disturbance similar to urethral shocks is noticed in many cases. Discharges from the nose should never be ignored or neglected, as they are often the first symptoms of a grave disease.—Medical Progress.

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ABSTRACT; THE FREQUENCY OF GALLSTONES IN THE UNITED STATES. C. D. Mosher concludes from the statistics consulted that gallstones are less frequent in theUnited States than in Germany, the proportion being 6.94 per cent. to 12 per cent. The frequency of gallstones in a given number of cases will increase with the age of the patients examined. The American cases tend to confirm the statements of previous observers that gallstones are rare before the thirtieth year and more frequent after that age. Gallstones are more frequent in the white than in the black race, the American cases showing a frequency of 7.85 per cent. in the whites and 5.51 per cent. in the negro. Women are more liable to have gallstones than are men, the American cases showing the frequency in 618 women to be 9.37 per cent., and in 1,037 men to be 5.94 per cent. The American women have gallstones only about half as frequently as the German women. In the United States only about one woman in every ten has biliary calculi, while in Germany, according to Naunyn, gallstones are found in 20.6 per cent., or about one woman in every five.—Med. Record.

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OBSTETRIC APHORISMS. The Cincinnati Lancet-Clinic of August 3, 1901, quotes the following from the Indian Lancet:

1. Never rupture membranes unless you are prepared to finish delivery at once, if necessary, or unless you confine the patient artificially within the limited period of time.

2. External measurement or pelvis must be practiced to yield trustworthy results.

3. The external (Baudelocque's) diameter is never reliable.

4. The distance between the crests should be about an inch greater than it is between the spines. Equal distances or a larger interspine indicate a deformed pelvis.

5. Contraction at the outlet is extremely rare, and if it occurs it is usually the result of an ankylosed coccyx.

6. If the index-finger can touch the promontory there is always a reduced conjugate diameter.

7. If, on the introduction of two fingers, the middle one does not reach the promontory, the conjugate is normal or more than normal.

8. Whenever the whole hand can be passed through the superior strait, there is a possibility of withdrawing the child through the natural passages.

9. If the hand cannot be passed Cæsarian section is indicated.

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TRAINING CHILDREN BORN BLIND TO SEE. From Vienna comes a letter telling of a method employed by Director Keller, by which children born blind are trained to see. He exhibited a child seven years old who had perfectly formed eyes, but who was born blind, brain blind. He taught this boy in the short time of four months to tell colors, form, and to read, with his eyes. (The Director was led to believe that he could accomplish this after he had taught seventy deaf and dumb children with normal ears, to speak and hear.)

His method consists in first teaching a child to distinguish light from darkness by moving a disk of light before the eyes in a perfectly dark room. Thus he develops a faculty not regnized by the child before and part of the training is slow, often requiring months of patient training.

The next step consists in placing objects, with which the child is familiar, against a light disc and the child is told what they are. By means of a colored glass placed before a light, colors are taught.

Figures of different design are then

placed in a dark room with the light falling upon them and gradually the sight is accustomed to day light.—Annals of Gyn. and Pediatry.

EXPLOSIVE MIXTURES. Explosive compounds result from the following admixtures:

Chorin and its oxids, with phosphorus or hypophosphites.

Free hydrochloric acid, with sulfur or sulfids.

Nitro-hydrochloric acid, with glycerin, sugar or alcohols.

Chlorates, or hypochlorites, with oils, ethers or tannin.

Chromates of chromic acid, with cork, charcoal or creasote.

Permanganates, with dry organic substances.

Nitric acid or nitrates, with powdered iron or zinc.

Bromin or bromates, with arsenious acid.

Iodin or iodates, with cyanides.

Silver oxid, with oxalates.

Peroxids (dioxids), with ferrous, mercurous or stannous salts.—Materia Medica, Pharmacy and Therapeutics, Potter, 1901.

MEDICINE IN THIBET. Dr. Susic Carson Rijnhart says there is no medical art worthy to be called such in Thibet. She writes: "For headache large sticking-plasters are applied to the patient's head and forehead; for rheumatism often a needle is buried in the arm or shoulder; a tooch is extracted by tying a rope to it and jerking it out, sometimes bringing a part of the jaw at the same time; a sufferer with stomachache may be subjected to a good pounding, or to the application of a piece of wick soaked in burning butter grease, or, if medicine is to be taken internally, it will consist probably of a piece of paper on which a prayer is written, rolled up in the form of a pellet, and if this fails to produce the desired effect another pellet is administered composed of the bones of some pious priest."

MILK PRESERVATIVES. M. Wynter Blyth detects the presence of added preservatives in milk by the following simple process. To 10 C.c. of each sample of milk to be tested, and to 10 C.c. of sterilized milk known to be free from preservative, 2 C.c. of very strong solution of alkaline litmus is added. All the tubes are then examined, and if not of the same shade of blue as the control tube, semi-normal NaHO solution is added to them until the tint is identical. All are then plugged with cotton wool and heated in the water bath to 80 deg. C. for ten minutes. After cooling, each tube, including the control tube, is inoculated with 0.5 C.c. of a mixture of sour milk in water (1 C.c. of milk in 200 C.c. of water). They are then allowed to stand at ordinary temperature for twenty-four hours. If the control tube be not then white, or nearly so, the series should be allowed to stand longer. The tubes of milk containing added preservative will then be found to be blue or pink, while those which are pure will be white, like the control tube.—Analyst.

WHERE THE CENTENARIANS RESIDE. More people over one hundred years old are found in mild climates than in the higher latitudes. According to the last census of the German Empire, of a population of 555,000,000 only 78 have passed the hundredth year. France, with a population of 40,000,000 has 213 centenarians. In England there are 146; in Ireland, 578, and in Scotland, 46. Sweden has 10 and Norway 23, Belgium 5, Denmark 2, Switzerland none. Spain, with a population of 18,000,000, has 401 persons over 100 years of age. Of the 2,250,000 inhabitants of Servia 575 have passed the century mark. It is said that the oldest person living is Bruno Cotrim, born in Africa and now living in Rio de Janeiro. He is 150 years old. A coachman in Moscow has lived for 140 years.—Indian Medical Record.

PHYSICAL DEFECTS OF STUDENTS. Twenty thousand students of American universities have been examined to find out how great a percentage are physically unsound and to classify their bodily defects. Dr. Jay W. Seaver, Yale gymnasium directeor, has completed the statistics, which have been prepared from eighteen leading universities, and the results of the investigation show an alarming condition of physical imperfections.

Dr. Seaver finds the most common physical defects is spinal curvature, or scoliosis. He has kept a record of the members of each freshman class at Yale the last five years who have been afflicted with this imperfection. He has found a total of 117, which is a percentage of 5.6 of the 2,057 students examined for this special weakness. He has divided the students examined into three groups Of the students who are scholarship leaders 18 per cent are scoliotic; of the ordinary students 6.5 are affected with the disorder, while only 1-7 per cent of the athletes are thus affected.

From the examination of 20,000 students in eighteen universities it has been proved that 3.8 per cent are suffering from hernia. Dr. Seaver says that the percentage of the Yale students who suffer from hernia is 3 per cent and that seven out of every ten who have the weakness have been cured by taking systematic prescribed exercise.

Dr. Seaver finds from examination of several thousand students that 53 per cent have defective eye sight, and that 18 per cent of the young men who enter college are forced to wear glasses when they arrive.

Dr. Seaver claims all the examinations show that consistent gymnasium and athletic exercise removes the greater part of physical defects to which college undergraduates, even more than the average mortals, are heir to.

EXTERMINATION OF THE WEAK. Is it possible that in this day and age of the world we should adopt the customs of the South Sea Islanders, and kill off those who are so unfortunate as to be weak in body and perhaps incapable of rendering any assistance in the battle of life? If reports be true, there is one teacher who has advocated as much. A dispatch says that one of the professors of sociology at Cornell University startled his class in political principles by the following statement:

"I am strongly in favor of killing off the weak in society for the benefit of the strong. Kill off the feeble-minded and those who are a burden to the rest of society as you would kill off so many rattlesnakes; not because we hate them, but because they are troublesome to have around. I believe the time will come when society will see the benefit of exterminating the weak by artificial means."

MILWAUKEE CONSUMPTIVES.—The fight against consumption by the city health department of Milwaukee has been begun. Circular letters have been sent to the practicing physicians requiring their co-operation in a movement to have every case of tuberculosis recorded and watched. Bottles and boxes for the collection of sputum of persons suspected of being consumptives have been procured and will be given by the health department free of cost upon application. The samples of sputum received at the department will be inspected by Dr. W. C. Bennett, the bacteriologist, and a report upon whether or not any of the germs of the disease are found will be made. Letters will be sent to the patients giving advice as to how they can best take care of themselves.

LARGEST HOSPITAL FOR CONSUMPTIVES. The number of patients in the United States general hospital at Fort Bayard is now 200, the largest number of consumptives gathered in a single institution in the United States. Major Appell, the surgeon in charge, says that with a few exceptions, a steady improvement is noted in the condition of all of them. Tre entire medical world is having its attention drawn to the wonderful climate of the southwest through this great institution, which is doing so much for Uncle Sam's sick soldier boys.—Silver City Enterprise.

STATES WHERE PHYSICIANS MAY PRACTICE WITHOUT EXAMINATION. From the best information we are able to obtain the following states do not require more than a diploma of graduation from a reputable medical college from persons contemplating the practice of medicine: Arkansas, Colorado, Kentucky, Michigan, Nevada, Nebraska, Oklahoma, Rhode Island, South Dakota and Wyoming.

# Book Notices.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A Practical Exposition of the Methods, Other than Drug-Giving, Useful in the Prevention of Disease and in the Treatment of the Sick. Edited by Solomon Solis-Cohen, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital, etc. Volume III—CLIMATOLOGY, Health Resorts, Mineral Springs. By F. Parkes Weber, M.A., M.D., F.R.C.P. (Lond.), Physician to the German Hospital, Dalston; Assistant Physician North London Hospital for Consumption, etc. With the Collaboration for America of Guy Hinsdale, A.M., M.D., Secretary of the American Climatological Association, etc. In Two Books. Book I,—Principles of Climatotherapy; Ocean Voyages; Mediterranean, European and British Health Resorts. Book II.—Mineral Springs, Therapeutics, etc. Ilustrated with Maps. Price for the complete set, $22.00 net.

These are the third and fourth volumes of Cohen's System of Physiologic Therapeutics, whose timeliness has already been commented upon. The first part treats of the factors of climate, with their effect on physiologic functions and pathological conditions, and describes the fundemental principles that underlie the application of climates, health resorts and mineral springs in the prevention of disease, and to promote the comfort and recovery of the sick.

The second part describes health resorts; and the third part discusses in detail the specific climatic treatment of various diseases and different classes of patients. Book II. also describes the health resorts in Africa, Asia, Australia and America.

In Book I ocean voyages are first treated of with considerable detail and their advantages and disadvantages, indications and counter-indications as a therapeutic measure, are pointed out. As very little exact information on this important subject exists in an available form, this chapter should be of great use to physicians. The subject of altitude is treated in a similarly full and definite manner, and not only are we told what classes of patients and disorders are benefitted by Alpine and Rocky Mountain climates, but also what classes are unsuitable for such treatment. The difference between summer and winter climates in Switzerland, and the therapeutic indications for the different seasons are discussed at length. In addition, the sea-coast and inland health resorts of the Mediterranean countries, those of Continental Europe and those of the British Islands, including mountain stations of various elevations, plains, and mineral water spas, are described, with no waste of words, but with a fullness of detail unusual in medical books. Not only geographic and climatic features are pointed out, but also social and other characteristics so important in selecting a resort that shall be suitable to the tastes and means of the individual patient, as well as beneficial in his disease. Throughout this section allusion is made to the special medical uses of the various resorts described, and to the particular form of treatment for which any one is famous.

The existence of sanatoria for special diseases, as those at seaside resorts for scrofulous and weakly children, and in various regions for consumption, nervous affections, diseases of women, and the like, are specified; and the mere lists of such places as found in the index, are likely to prove invaluable for reference. We know none other so complete. A mere glance at the closely printed pages of the index will show how unusually full is the treatment of special resorts and their particular qualities. Like the preceding volumes these are thoroughly scientific and eminently practical, a combination that reflects credit alike on authors and editor.

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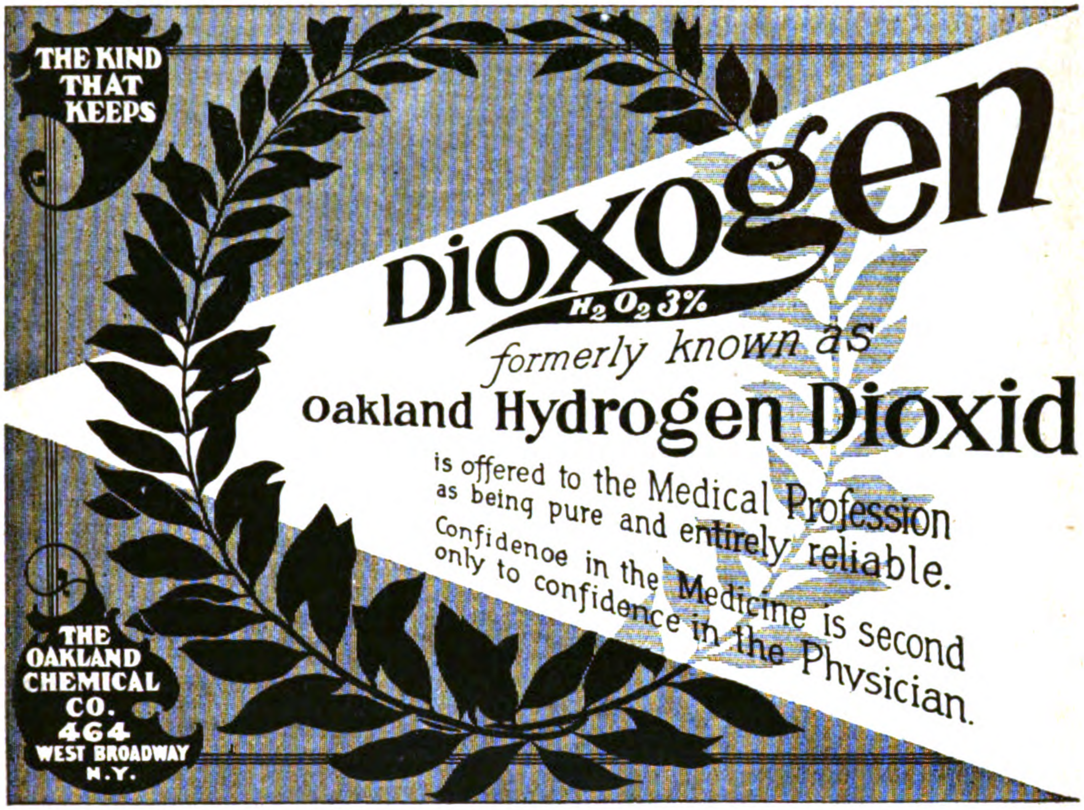
THE PHYSICIAN'S VISITING LIST. (Lindsay & Blakiston's.) For 1902. Fifty-First Year of Its Publication. Philadelphia: P. Blakiston's Son & Co. (Successors to Lindsay & Blakiston), 1012 Walnut Street. Sold by all Booksellers and Druggists. Price for 25 Patients per day or Week, Pencil, Pockets, etc., \$1.00; 50 patients, \$1.25; 50 patients, 2 vols. Jan. to June, and Jul. to Dec., \$2.00; 75 patients, same as last, \$2.00; 100 patients, do., \$2.25. Perpetual edition for 1300 names, interleaved, tucks, pocket and pencil, \$1.25; 2600 names, \$1.50. Monthly edition, plain binding, 75 cents; Leather cover, pocket and pencil, \$1.00.

This very neat visiting list for 1902 contains calendar for 1902 and 1903; table of signs; metric system weights and measures; table for converting apothecaries' weights and measures into grams; dose table; asphyxia and apnea; comparison of thermometers; a new complete table for calculating the period of utero-gestation; and blank leaves for visiting list, memoranda, addresses of patients, addresses of nurses, accounts asked for, memoranda of wants, obstetric engagements, vaccination engagements, record of births and deaths, and cash account.

*"And he journeyed without resting,*
*"Till he heard the cataract's laughter,*
*"Heard the Falls of Minnehaha*
*"Calling to him through the silence.*
*" 'Pleasant is the sound!' he murmured,*
*" 'Pleasant is the voice that calls me!' "*
*--Song of Hiawatha.*



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**THE TREATMENT OF SYPHILIS, WITH SPECIAL REFERENCE TO THE BEST METHODS OF ADMINISTERING MERCURY.** By Winfield Ayres, M.D., Genito-Urinary Surgeon, Bellevue Hospital, O. D. P., New York; Instructor in Genito-Urinary Diseases in New York University and Bellevue Hospital Medical College; Instructor in Genito-Urinary Diseases in the New York Post-Graduate Hospital, etc.—An abstract of an original paper by the author in The Lancet (London, Eng.), October 19, 1901. The author calls to mind the fact that mercury has been used in the treatment of syphilis for over 400 years, and there are few physicians, to-day, who do not use it in some form. Although the method of treatment with mercury is still discussed, he is firmly of the opinion that there is no hope of eradicating the disease unless the full dose is given constantly for something like three years. The treatment should begin just as soon as the diagnosis can be made. There is no ground for supposing that enucleation of the chancre has the effect of aborting the disease. If a positive diagnosis cannot be made from the appearance of the initial lesion, general tonic treatment should be instituted.

In some cases the protiodide controls the symptoms, but in the majority it is of very little use. Experiments with Mercurol were conducted at Bellevue Hospital, for eight and a half months, with 180 cases. The histories of 95 of these are recorded. The remainder could not be kept under observation and are therefore passed over. The dosage of the Mercurol, regulated either by reaching the point of tolerance or control of the disease, varied from one half to six grains. In 64 of the 95 cases the disease was controlled as follows: in two weeks, 8; three weeks, 12; four weeks, 14; five weeks, 6; six weeks, 5; seven weeks, 2; two months, 8; ten weeks, 2; three months, 5; and four months, 1. The remainder are marked thus: decidedly improved, 17; improved, 8; no improvement in two weeks,3; no improvement in four weeks, 1; and no improvement in three months, 2. The latter were all dispensary patients and it is uncertain whether they took their medicine regularly.

The writer states that his plan was to increase the dose steadily from one grain until the symptoms were controlled or until there was a slight tendency on the part of the teeth and gums to become tender. If the symptoms were not controlled before the physiological effect of the Mercurol made itself felt, small doses of potassium iodide were added, and in every case where the Mercurol was taken according to directions, with the exceptions noted above, the symptoms were controlled.

In 67 out of the 95 cases tabulated, no other medicine than Mercurol was given. In 15 out of the remaining 28, the addition of iodide of potassium was found to be sufficient to control the disease, while in 6 others the addition of iron tonic sufficed for this purpose.

The cases are not reported at length, but a few of the more remarkable results and some cases in which other medicines failed to control the disease are briefly mentioned.

Case 1 had been taking bichloride for one month with very little improvement. Under Mercurol, three grains maximum dosage, the symptoms were under control in five weeks.

Case 2 had been under biniodide of mercury (one sixteenth of a grain) and potassium iodide (five grains), which caused iodism. His symptoms were controlled in one month under half a grain of Mercurol.

In case 3 unguentum hydrargyri had failed to control the disease. The patient was put on Mercurol and the dosage pushed up to six grains three times a day. The disease was thoroughly under control in seven weeks.

Case 4 had been on three-eights of a grain of biniodide of mercury and twenty grains of potassium iodide for two months. The medicine caused nausea and vomiting. Having been put on Mercurol and the dosage gradually increased to five grains three times a day, the symptoms were controlled in three weeks.

Case 5 had been taking hydrargyrum bichloride (one twelfth of a grain) three times a day, under which an eruption on his face had faded, but the eruption on his body still persisted. His symptoms disappeared in two weeks under a maximum dose of three grains of Mercurol three times a day.

Case 6 had been on bichloride of mercury (three-sixteenths of a grain) for three months, in spite of which he had palmar syphilide of an eczematous variety. All appearances of the disease disappeared after he had been one month on Mercurol, his maximum dose being three grains three times a day.

Case 7 had been taking one-quarter of a grain of Mercurol and fifteen grains of potassium iodide, with the result that the eruption had decidedly improved, though not to the extent that it should have done. There were thickened red patches on the face, covered with scaly eruptions. The symptoms almost entirely disappeared within three weeks under a maximum dosage of five grains of Mercurol three times a day and fifteen grains of potassium iodide.

Case 8 had been treated with inunctions of mercury under which the eruptions disappeared, but the pain in the bones still persisted. He was relieved in three weeks under a maximum dosage of four grains of Mercurol three times a day.

Case 9 had been taking other forms of mercury for six months. The form which had done him the most good was bichloride. Yet one-fifth of a grain did not entirely control the disease. He had been taking that for two months when he was placed on Mercurol. The dosage in his case was pushed up to six grains three times a day, and at the end of seven weeks all his symptoms had disappeared.

Case 10 had been taking medicine off and on for two years, but his symptoms never disappeared entirely. After being two weeks on Mercurol (two grains three times a day) with the addition of potassium iodide, all symptoms had disappeared.

Ayres, in conclusion, states that he uses

# TRI-IODIDES (HENRY'S)

*LIQUOR SALI-IODIDES—Colchicin, 1-20 grain; Phytoloccin, 1-10 grain; Solanin, 1-3 grain; Soda Saliculate, 10 grains; Iodic Acid, equal to 7-32 grains Iodine; Aromatic Cordial. Dose, 1 to 2 drams in water. 8oz. bottle, $1.00.*

**A powerful alterative and resolvent, glandular and hepatic stimulant, and succedaneum to the iodides. Indicated in all conditions dependent upon perverted tissue metabolism; in lymphatic engorgements and functional visceral disturbances; in lingering rheumatic pains which are "worse at night." Bone, periosteal and visceral symptoms of late syphilis; for the removal of all inflammatory, plastic and gouty deposits.**

**A remedy in sciatica, megrim, neuralgias, lumbago and muscular pains; the gouty and rheumatic diathesis; acute and chronic rheumatism and gout; chronic eczema and psoriasis, and all dermic disorders in which there is unperlying blood taint.**

**An hepatic stimulant increasing the quantity and fluidity of the bile. Relieves hepatic and intestinal torpor; does not cause the unpeasant gastric symptoms of potassium iodide.**

# THREE CHLORIDES (HENRY'S)

*LIQUOR FERRISENIC—Each dram contains: Proto-Chlor. Iron, 1-8 grain; Bi-Chlor. Mercury, 1-128 grain; Chloride Arsenic, 1-280 grain: Calisaya Cordial. Dose,1 to 2 drams. 12-oz bottle, $1.00.*

**An oxygen-carrying ferruginous preparation, suitable for prolonged treatment of children, adults, and the aged. Indicated in anemia and bodily weakness, convalescence from acute diseases and surgical operations; boys and girls at the age of puberty, and the climacteric period in women. In children with chorea, rickets, or who are backward in development, or in whom there exists an aversion to meats and fats. Prolonged administration never causes "iron headache."**

**As an adjuvant for potassium iodide, the undesirable manifestation known as iodism can be removed.**

**Stimulant to the peptic and hydrochloric glandular system of the stomach, especially serviceable in the impaired appetite, nausea, vomiting and other gastric symptoms of alcoholic subjects.**

# MAIZO LITHIUM

*LIQUOR LITHIUM MAIZENATE—Nascent Chemic Union of Maizenic Acid—from Green Corn Silk—with Lithium, forming Maizenate-Lithium. Two grains to dram. Dose 1 to 2 drams. 8-oz bottle, $1.00.*

**A genito-urinary sedative, an active diuretic; solvent and flush; indicated for the relief and prevention of renal colic: a sedative in the acute stages of gonorrhea, cystitis and epididymitis: in dropsical effusions due to enfeebled heart or to renal diseases. As a solvent in the varied manifestations of gout, goutiness and neurotic lithemia, periodical migrainous headache, epigastric oppression, cardiac palpitation, irregular, weak or intermittent pulse; irritability, moodiness, insomnia and other nervous symptoms of uric-acidemia. Decidedly *better*, more economical, extensive in action and definite in results, *than mineral waters*.**

**Those cases of irritable heart, irregular or intermittent pulse so frequently met with by insurance examiners, and found to be due to excess of uric acid, are special indications for Maizo-Lithium.**

## Henry Pharmacal Co., - Louisville. Ky.

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**Dr. Milner Fothergill** wrote: "It (**Fellows' Hypophosphites**) is a **good all-around tonic**, specially indicated where there is Nervous Exhaustion.

SPECIAL NOTICE:—**Fellows' Syrup** is advertised only to the Medical Profession; is never sold in bulk, and physicians are cautioned against worthless substitutes.

Medical letters may be addressed to

**Mr. Fellows, 26 Christopher Street, New York.**

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